CG CAPTIVA

CG Captiva Owner’s Handbook

GM Holden Ltd, ABN 84 006 893 232 (hereinafter Holden)

Change of name, address or ownership

In the event of a Safety Recall, or for various reasons, Holden may need to contact you as the owner of this vehicle.

If you have recently changed your address, or name, or purchased this vehicle second-hand, please help us to help you by taking a few minutes to fill in and mail the forms at the beginning of the Service/warranty booklet.

For information about GM Holden's privacy policy or to update owner details online, please visit Holden's website at www.holden.com.au

Note Please refer to the inside front cover of the Service/warranty booklet for the Vehicle Identification Certificate.

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We thank you for choosing Holden and want to assure you of our continuing interest in your driving pleasure and satisfaction.

This handbook applies to the current Captiva model. Therefore, due to different models and options, you may find reference in this handbook to some equipment not fitted to your own vehicle.

Please note that all information, illustrations and specifications in this handbook are based on the latest production information available at the time of printing. Holden reserves the right to make changes at any time without notice and without incurring any obligation.

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*The asterisk signifies equipment options not in all vehicles, model variants, engine options, optional equipment and Genuine Holden Accessories (and Parts).

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CHAPTER 1A

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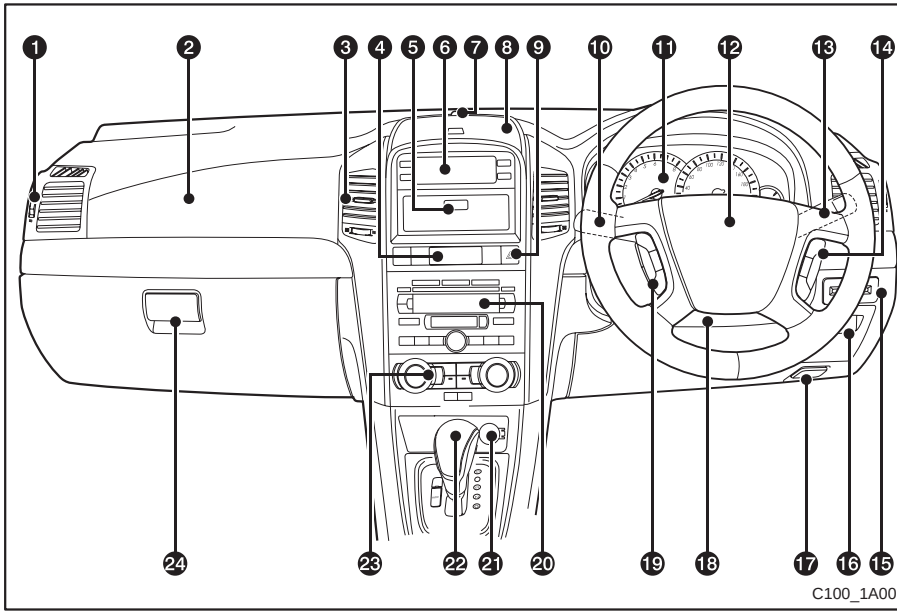
*The asterisk signifies equipment options not in all vehicles, model variants, engine options, optional equipment and Genuine Holden Accessories (and Parts).

DASHBOARD LAYOUT



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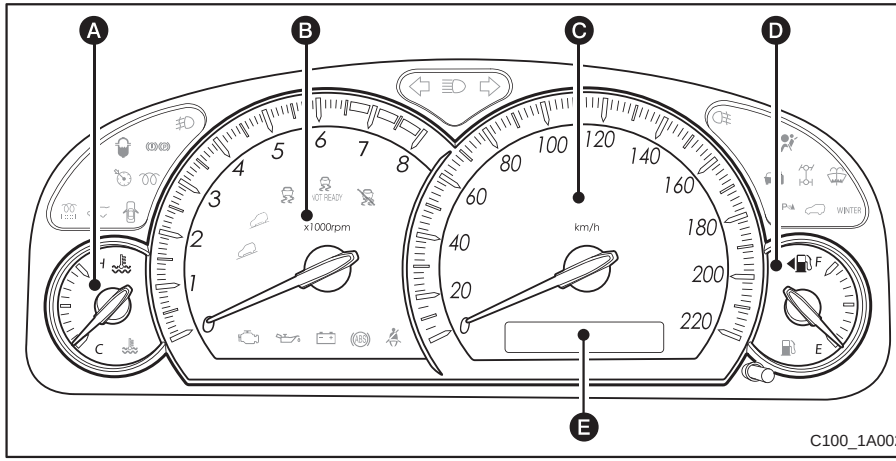
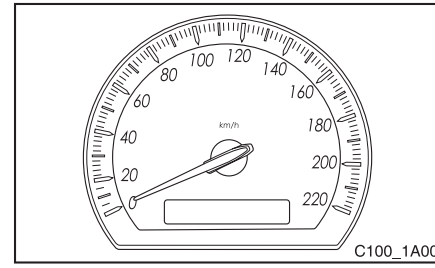
INSTRUMENTATION



Ⓒ Speedometer

The speedometer indicates the vehicle's speed in kilometres per hour (km/h).



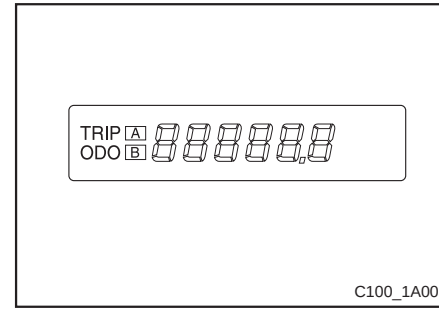
Ⓔ Odometer and tripmeter

A small window under the speedometer is used for the odometer and tripmeter.

The odometer records the distance travelled since the vehicle was built, and the tripmeter records the distance travelled on a particular journey. The tripmeter can keep a record of two different journeys at the same time. The two trip odometers are distinguished as **TRIP A** and **TRIP B**.

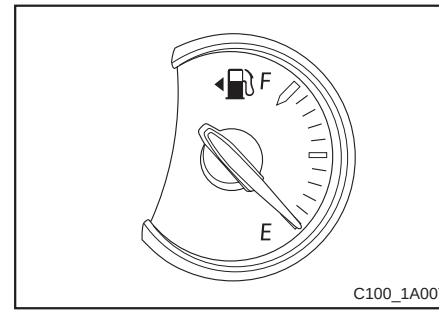
The trip odometer reset button is located at the lower right-hand side of the speedometer dial.

With the ignition switched on, push the trip odometer reset button to change the display between the odometer, **TRIP A** and **TRIP B**. If the trip odometer reset button is pressed and held, the tripmeter resets to zero.



INSTRUMENTATION cont.

Ⓓ Fuel gauge



The fuel gauge indicates the level of fuel within the fuel tank when the ignition switch is turned to the **ON** position. **F** represents full and **E** represents empty. The needle in the fuel gauge falls to **E** when the ignition switch is turned to the **LOCK** position.

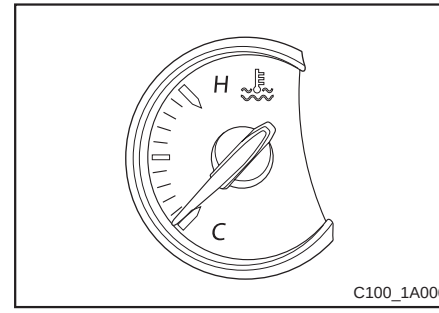
Refer to *Fuel* in chapter 5 for refuelling instructions.

Note Avoid letting the tank run empty; this can cause damage to the catalytic converter.

Diesel engines: if run dry, the fuel system must be bled. Refer to *Diesel fuel filter* in chapter 6.

Refer to *Specifications* in chapter 8, for fuel tank capacity.

Ⓐ Temperature gauge



The temperature gauge indicates the temperature of the engine coolant when the ignition switch is turned to the **ON** position.

Stop-start driving in heavy traffic, driving at high speed in warm weather, hill climbing or towing may cause the temperature to increase. This is normal, and is no cause for concern.

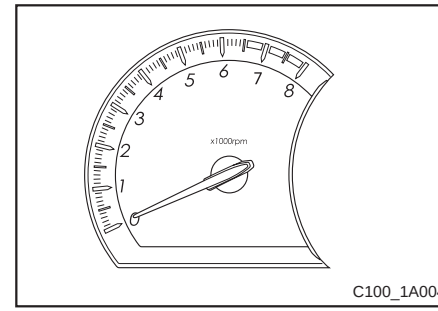
WARNING
Do not continue driving with the temperature gauge needle in the red area, the engine is too hot. Continued operation of an overheated engine will result in severe engine damage. Refer to *Engine overheating* in chapter 6.

INSTRUMENTATION cont.

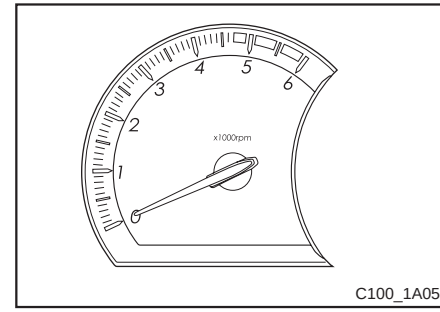
Ⓑ Tachometer

The tachometer indicates the engine speed in revolutions per minute (RPM). The red zone of the tachometer indicates critical engine speed.

WARNING
Never operate the vehicle with the tachometer needle in the red zone. Continued operation with the tachometer needle in the red zone will lead to serious engine damage.



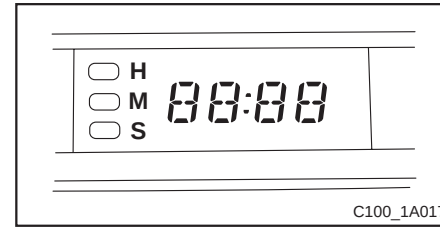
Petrol engine



Diesel engine

Clock

With the ignition switch in the **ACC** (accessory) or **ON** position, the digital clock displays the time. The digital clock has three adjusting buttons.



H: hour button:

- To advance 1 hour, press the **H** button.
- To advance more then 1 hour, press and hold the **H** button until you reach the desired hour.

M: minute button:

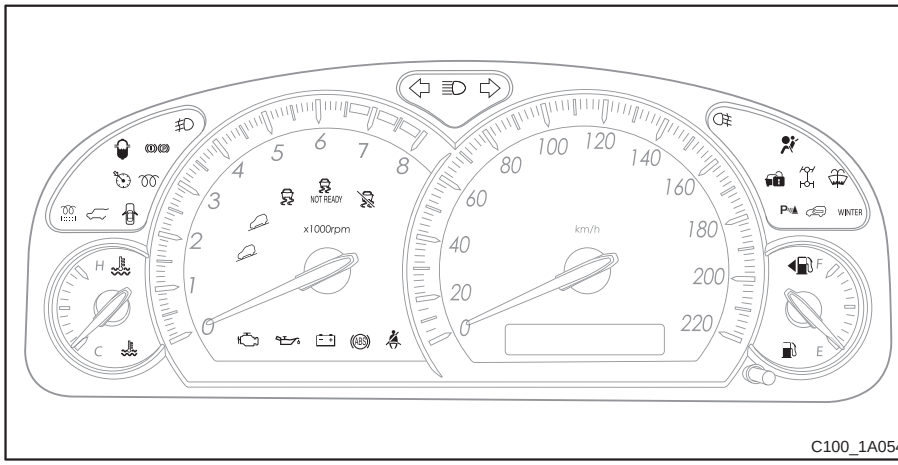
- To advance 1 minute, press the **M** button.
- To advance more than 1 minute, press and hold the **M** button until you reach the desired minute.

S: set button:

- To reset the time to the nearest hour, press the **S** button.
- If you press this button when the time is between 8:00 and 8.29 for example, the display will reset to 8:00.
- If you press this button while the time is between 8:30 and 8:59 for example, the display will reset to 9:00.

Note If the power supply to the clock is interrupted, then the clock will need to be reset.

WARNING/REMINDER INDICATIONS



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Anti-Lock Brake System (ABS)

The ABS warning lamp illuminates when the ignition switch is turned to the ON position, and goes out after approximately 4 seconds.

If the lamp:

- Does not flash or stays on when the ignition is in the **ON** position.
- Stays on after several flashes.
- Flashes while driving.
- Stays on continuously while driving.

Carefully stop the vehicle and switch off the engine. If the lamp still exhibits a fault condition while driving, contact your Holden Dealer immediately.

Note This lamp indicates the anti-lock braking system is not operating although the vehicle's brake system will still operate conventionally. Refer to *Anti-lock brake system* in chapter 4.

Airbag and Supplemental Restraint System (SRS)

To check if the warning lamp is working, the SRS warning lamp flashes several times when the ignition switch is first turned to the **ON** position.

If the lamp:

- Does not flash or stays on when the ignition is in the **ON** position.
- Stays on after several flashes.
- Flashes while driving.
- Stays on continuously while driving.

If the SRS warning lamp exhibits any of the above conditions while driving, it indicates the airbag system or seat belt pretensioner system may not function correctly, especially in an accident. Contact your Holden Dealer immediately.

WARNING/REMINDER INDICATIONS cont.

Brake

The brake warning lamp illuminates when the ignition is switched to the **ON** position and goes out after approximately 4 seconds.

The lamp also displays when the park brake is engaged. The lamp extinguishes when the park brake is released.

If the brake warning lamp displays while you are driving and the park brake is fully released, you should stop the car as soon as possible and contact your Holden Dealer immediately.

WARNING
Driving with the brake warning lamp on can lead to an accident. Have the brake system checked immediately if the brake warning lamp stays on.

Battery

The battery warning lamp illuminates when the ignition is switched to the **ON** position and goes out after approximately 4 seconds.

If the lamp illuminates when driving, this may indicate the alternator is not charging the battery. If the alternator drive belt is intact, there is a problem in the charging system. Contact your Holden Dealer.

Oil pressure

The oil pressure warning lamp illuminates when the ignition is switched to the **ON** position and goes out after approximately 4 seconds.

If the oil pressure lamp illuminates while driving, this indicates the oil pressure is dangerously low. Stop the vehicle as soon as possible and check the engine oil level. Refer to *Engine oil level* in chapter 7. Do not drive the vehicle with the oil pressure indicator lamp illuminated. Contact your Holden Dealer.

Malfunction indicator lamp

The Malfunction Indicator Lamp (MIL) monitors the emission control system. This lamp illuminates when the ignition switch is in the **ON** position and the engine is not running. If it stays illuminated or illuminates while driving, there may be a problem with the system. Contact your Holden Dealer.

The MIL will also illuminate to indicate that there is a malfunction in the Diesel Particle Filter (DPF). If this happens, contact your Holden Dealer. Refer to *Emission control* in chapter 5.

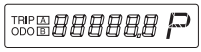
WARNING
If you keep driving your vehicle with the malfunction indicator lamp illuminated, after a while, your emission control system may not work as well, your fuel economy may not be as efficient and your engine may not run as smoothly. This could lead to costly repairs.

WARNING/REMINDER INDICATIONS cont.

WINTER

Winter mode indicator (automatic transmission only)

The winter mode indicator illuminates when the winter mode button is pressed, use this mode to drive away smoothly during icy and slippery road conditions.



Shift select position indicator (automatic transmission only)

Displays the position of the automatic transmission shift select lever.

Front fog lamp indicator*

Illuminates when the front fog lamps are switched on.

Rear fog lamp indicator

Illuminates when the rear fog lamps are switched on.

Driver's seat belt reminder

When the ignition switch is switched to the **ON** position, the seat belt reminder lamp illuminates to remind the driver to fasten the seat belt, if the seat belt is not fastened after the engine has been started the lamp will flash for approximately 90 seconds and then stay illuminated continuously until the driver's seat belt is fastened.

When the vehicle is driven away and the speed is above 22 km/h the lamp will flash again and a warning chime will sound for approximately 90 seconds, after which the lamp will stay illuminated continuously until the driver's seat belt is fastened.

If the driver's belt is buckled, neither the chime nor the lamp will illuminate.

Turn signals

When the turn signal switch or hazard warning lamp switch is switched on, the turn signal indicator lamp (within the instrument panel) flashes to indicate operation of the turn signal lamps or hazard warning lamps.

High beam

This indicator lamp is illuminated when the headlamps high beams are in use.

Park Assist*

When the ignition switch is turned to the **ON** position, the Park Assist indicator illuminates for approximately 4 seconds.

If the Park Assist warning lamp illuminates while driving, it indicates there is a problem with the Park Assist system. Consult your Holden Dealer.

Note The Park Assist warning lamp illuminates when a trailer lighting plug is connected to the vehicle, this reminds the driver that the Park Assist system is deactivated.

WARNING/REMINDER INDICATIONS cont.

Electronic stability program (ESP®) off indicator

When the ignition switch is turned to the **ON** position, the ESP® indicator illuminates for approximately 4 seconds.

The ESP® off indicator will illuminate after the button on the centre of the instrument panel has been pressed.

Electronic stability program (ESP®) not ready indicator

The ESP® not ready indicator illuminates to indicate the ESP® is not ready for operation. Refer to *Electronic stability program* in chapter 4.

Electronic stability program (ESP®) active and warning lamp

When the ignition switch is turned to the **ON** position, the ESP® indicator illuminates for approximately 4 seconds.

This lamp flashes while ESP® is actively helping the vehicle with road grip and stability. If the lamp illuminates constantly, this indicates there is a malfunction in the system. Consult your Holden Dealer.

Descent control system (DCS) active and not ready warning lamps

When the ignition switch is turned to the **ON** position, the DCS lamp illuminates for approximately 4 seconds.

- The green DCS lamp illuminates when DCS is activated by pressing the DCS button in the centre of the instrument panel and flashes while DCS is active.
- The amber DCS lamp indicates the DCS is not ready or there is a malfunction in the system. Consult your Holden Dealer.

Immobiliser system

When the ignition switch is turned to the **ON** position, the immobiliser indicator illuminates for approximately 4 seconds.

If this lamp illuminates constantly, there is a malfunction in the system. Consult your Holden Dealer.

Low windscreen washer fluid

When the ignition switch is turned to the **ON** position, the low washer fluid indicator illuminates for approximately 4 seconds.

If this lamp illuminates constantly, the fluid in the washer reservoir is low and must be refilled.

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WARNING/REMINDER INDICATIONS cont.

Service vehicle soon (SVS)

When the ignition switch is turned to the **ON** position, the SVS indicator illuminates for approximately 4 seconds.

The service vehicle soon lamp will constantly illuminate if a malfunction exists in the non-emission related components or the related sub systems. Consult your Holden Dealer.

WARNING
If you keep driving your vehicle with the service vehicle soon lamp on, damage may result in the non-emission related components or related sub systems. This could lead to costly repairs.

Engine coolant temperature

When the ignition switch is turned to the **ON** position, the coolant temperature indicator illuminates for approximately 4 seconds.

If the engine coolant warning illuminates while driving, it indicates the engine coolant temperature is excessively hot. It is advisable to stop the vehicle as soon as it is safe to do so. If the lamp does not extinguish, consult your Holden Dealer.

WARNING
Do not continue driving with the temperature gauge needle in the red area, the engine is too hot. Continued operation of an overheated engine will result in severe engine damage. Refer to *Engine overheating* in chapter 6.

Door ajar warning

Illuminates when a door is open or not securely latched.

Tailgate ajar warning

The tailgate ajar warning lamp illuminates when the ignition is switched to the **ON** position and goes out after approximately 4 seconds.

Illuminates when the tailgate or the tailgate window is open or not securely latched.

Cruise control indicator

Illuminates when the cruise control has been set and extinguishes when cruise control is turned off.

All Wheel Drive system (AWD)*

When the ignition switch is turned to the **ON** position, the AWD indicator illuminates for approximately 4 seconds.

The lamp flashes when the AWD system is temporarily disabled. The lamp remains on continuously when there is a malfunction in the AWD system. Consult your Holden Dealer.

WARNING/REMINDER INDICATIONS cont.

Low fuel

Illuminates when the ignition is switched to the **ON** position and goes out after approximately 4 seconds.

The low fuel indicator lamp displays when the fuel tank is approaching empty. When the low fuel lamp illuminates add fuel as soon as possible.

Note If diesel engines run empty, the fuel system must be bled. Refer to *Diesel fuel filter* in chapter 6.

Glow plug indicator* (Diesel preheating system)

Illuminates when the ignition is switched to the **ON** position and will stay illuminated until the engine is sufficiently warmed. Refer to *Engine starting* in chapter 4.

Note Preheating system switches on only if outside temperature is low.

Diesel particle filter (DPF)* (Diesel engine only)

Illuminates or flashes when the diesel particle filter requires cleaning. As soon as the road and traffic situation permits it, increase speed to more than 50 km/h for a brief period (approx. 15 minutes). The warning lamp will extinguish when cleaning is completed.

Note Turning the ignition off while the lamp is illuminated or flashing may result in increased fuel consumption and a reduction in engine oil life will occur.

Refer to *Emission control* in chapter 5.

Water in fuel filter* (Diesel engine only)

Illuminates when the water level in fuel filter is excessive. If this occurs, drain the water from fuel filter as soon as possible. Refer to *Diesel fuel filter* in chapter 6.

The warning lamp will extinguish when draining is completed.

Note

- Before starting the engine after draining, a priming operation must be performed. Refer to *Diesel fuel filter* in chapter 6.
- The diesel fuel filter will be drained by your Holden Dealer when the vehicle is serviced. Refer to the Service/warranty booklet.

Front passenger seat belt reminder

When the ignition switch is turned to the **ON** position, the front passenger seat belt indicator illuminates for approximately 4 seconds.

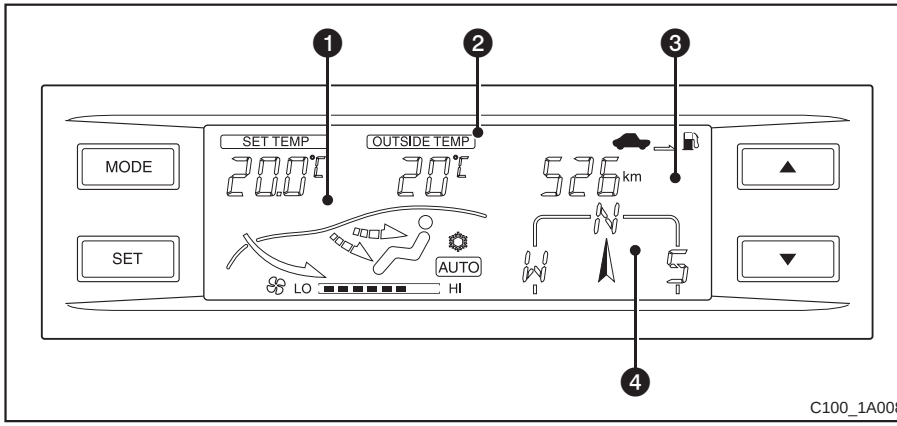
The system performs a self check, then the lamp extinguishes if the front passenger seat is not occupied.

If the front passengers seat is occupied the lamp remains on until the passenger's seat belt is fastened.

Note The front passenger seat belt reminder is located on the dashboard directly in front of the passenger seat.

*DRIVER INFORMATION DISPLAY (DID)**

The Driver Information Display (DID) displays information for the climate control system, outside temperature, trip computer and the compass when the ignition switch is in the **ON** position.



❶ Climate control display.
❷ Outside temperature.
❸ Trip computer.
❹ Compass.

OUTSIDE TEMPERATURE

The **OUTSIDE TEMP** display may not show the current outside temperature until the vehicle has reached a speed of at least 30 km/h for a minimum of 3 minutes. This avoids temperature fluctuations from radiated engine heat or heat from other sources, such as exhaust from other vehicles, from being displayed.

TRIP COMPUTER

The trip computer displays driving information such as driving distance for remaining fuel, average fuel consumption, average speed and driving time.

Each time the **MODE** button is pressed the display changes in the following sequence:

- Driving distance for remaining fuel.
- Average speed.
- Driving time.
- Average fuel consumption.

To reset average speed, driving time or average fuel consumption, press the **MODE** button for more than 2 seconds.

To change the display from km to miles or from °F to °C proceed as follows:

1. Press the **SET** button for more than 2 seconds then the temperature display will blink.
2. Press the **SET** button again, the distance display will blink.
3. Press the ▲ and ▼ button to change the distance display (km. mile or °F. °C).

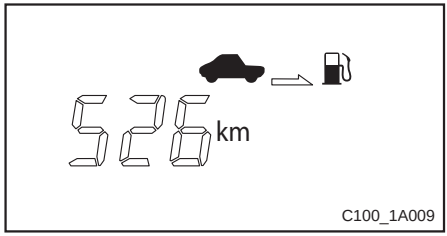
DRIVER INFORMATION DISPLAY (DID) cont.*

Driving distance for remaining fuel

This mode indicates the estimated driving distance to empty from the current fuel in the fuel tank.

When the distance to empty is less than 50 km, **---** will be displayed.

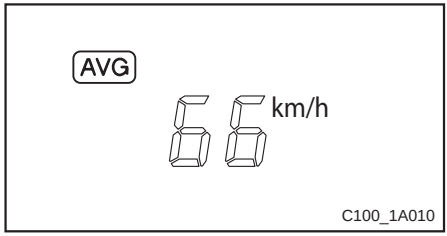
Note The driving distance for remaining fuel can differ from the actual distance according to driving conditions, driving pattern or vehicle speed.



Average speed

This mode indicates the average speed of the vehicle.

To reset the average speed to zero, press the **MODE** button for more than 2 seconds.

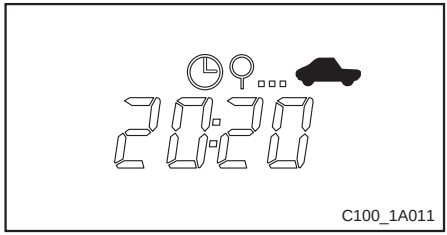


Driving time

This mode indicates the total drive time.

To reset the driving time to zero, press the **MODE** button for more than 2 seconds.

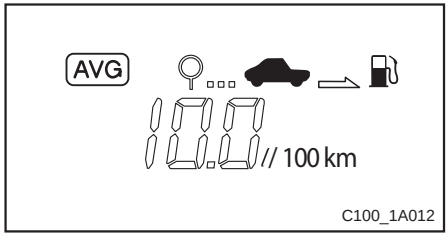
The driving time will be initialised to 0:00 after being displayed to 99:59.



Average fuel consumption

This mode calculates the average fuel consumption from the total fuel used and the distance since the last average fuel consumption reset.

To reset the average fuel consumption to zero, press the **MODE** button for more than 2 seconds.



Note

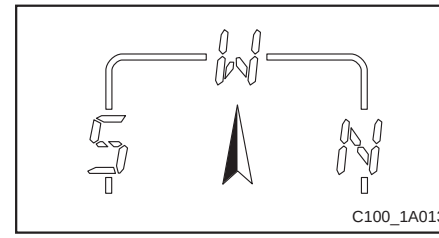
- Average fuel consumption is reset to 10:0 if the battery is disconnected.
- The average fuel consumption can differ from the actual average fuel consumption according to driving conditions, driving pattern or vehicle speed.

DRIVER INFORMATION DISPLAY (DID) cont.*

COMPASS

This displays the vehicle's driving direction in 8 directions, (N, NE, E, SE, S, SW, W, NW).

Note The direction will be displayed when the ignition is switched to the **ON** position.

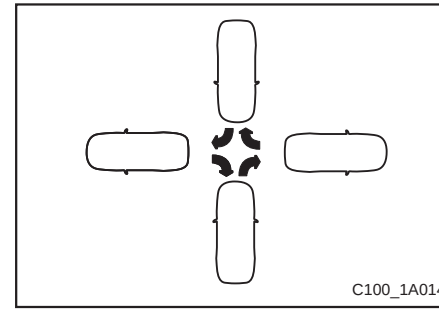


Compass calibration

The compass needs to be calibrated the first time it is used or when the battery has been disconnected.

Follow these steps to calibrate the compass:

1. Press the **MODE** and **SET** buttons simultaneously for more than 2 seconds, and the compass display will flash.
2. Drive the vehicle around slowly in one complete circle within 90 seconds, then the calibration will be complete.



3. When the calibration is complete the compass display stops flashing.
4. If enough space is not available to turn the vehicle in one complete circle, follow the diagram opposite for an alternate method.

   Note

   - The vehicle can be turned in any direction, left or right.
   - If the compass display continues to flash, drive the vehicle slowly in a circle again until it stops flashing.

Cancelling compass calibration

- Press the **SET** button twice.
- If the vehicle was not turned within 90 seconds after the calibration mode was started, compass calibration will be cancelled.

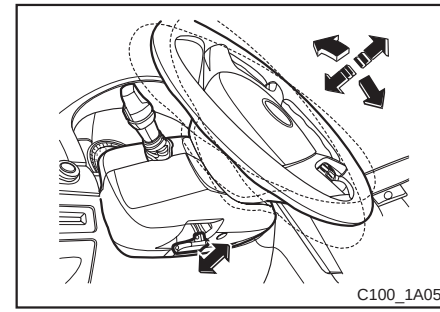
Deflection calibration

In the compass calibration mode, press the **SET** button to move to deflection calibration mode. Then press ▲ and ▼ button to adjust the deflection calibration value.

STEERING, HORN, HAZARD WARNING

Tilt and telescopic steering

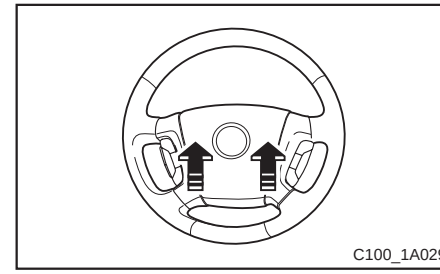
The tilt/telescopic steering lever is located on the underside of the steering column. To adjust the height or the reach of the steering wheel, push the lever downward, to unlock the steering column. Move the steering wheel to the desired height and reach, then pull the lever upward to lock the steering column. Try moving the steering wheel up and down to ensure it is securely locked into position.


C100_1A059

WARNING
Do not attempt to adjust the steering wheel while driving.

Horn

To sound the horn, press the horn symbol on either side of the steering wheel centre pad. The horn will sound regardless of ignition switch position.

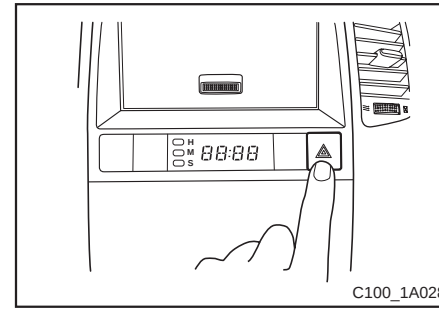

C100_1A029

Hazard warning

Use the hazard warning flasher to warn other drivers any time your vehicle becomes a traffic hazard, day or night.

Press the switch located on the right-hand side of the digital clock, to switch the hazard warning flasher on and off. The hazard warning flasher works regardless of the ignition switch position.

Both indicator symbols on the instrument panel will flash simultaneously, and all six external signal lamps will flash continuously.



C100_1A028

Note

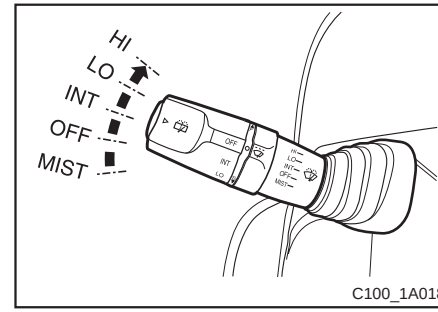
- Avoid stopping on the roadway if possible.
- The hazard warning works with the ignition switch in any position.
- The use of the hazard warning flashers while the vehicle is moving may be illegal in some States.

When opening a door the lamp in the hazard warning flasher button illuminates. If the key is removed from the ignition switch then a door is opened and closed the lamp will illuminate for approximately 10 minutes.

WIPERS AND WASHERS

Windscreen wipers

To operate the windscreen wipers, turn the ignition switch to the **ACC** or **ON** position and move the windscreen wiper/ washer lever to one of the following five positions:



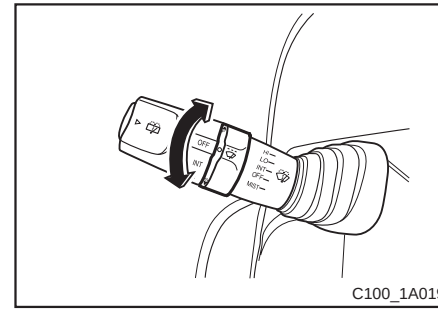
C100_1A018

MIST To operate the wipers once during light rain or mist, move the windscreen wiper lever downward and release it.

OFF Wipers off.

INT Move the lever up one level. The frequency of the intermittent wipe can be adjusted by rotating the collar marked . Rotate the collar up for more frequent wipes, or down for less frequent wipes.

Note The variable intermittent wiper frequency is road speed dependent. This means that as the vehicle speed increases, so does the wiper rate.


C100_1A019

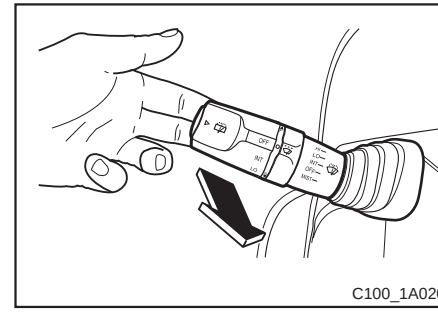
LO Continuous wipe, slow speed. Move the lever up two levels.

HI Continuous wipe, fast speed. Move the lever up three levels.

Note If the windscreen wipers are turned on with the automatic lamp switch* in the AUTO position, the headlamps will turn on automatically after 8 wipes.

Windscreen washer

To spray washer fluid onto the windscreen, pull the windscreen wiper lever toward you. Even if the wiper setting is not selected, the washer will spray fluid and the wipers will operate for three cycles or until the lever is released.


C100_1A020

WIPERS AND WASHERS cont.

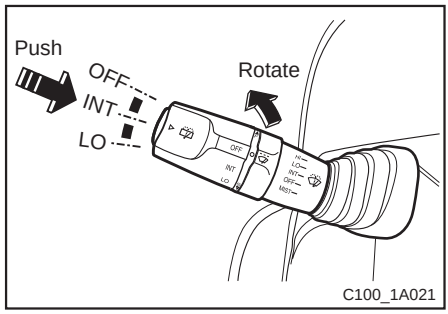
Rear wiper and washer

To switch the rear wiper on, rotate the end of the wiper lever toward the instrument panel. To spray washer fluid push the button on the end of the lever.

- **OFF** – Wiper off position.
- **INT** – Intermittent operation.
- **LO** – Continuous operation.

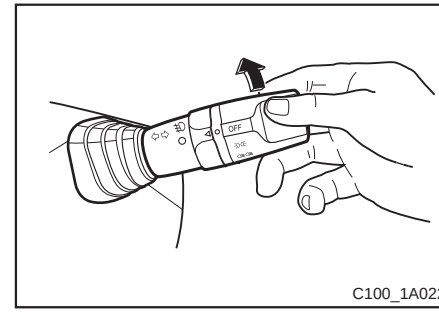
Note

- Never operate the wipers on dry glass, as this could damage the rubber and scratch the windscreen. Ensure the wipers are clear of any snow or ice before switching them on.
- The rear window wiper comes on when the front wipers are on and reverse gear is engaged.



LIGHTS

Lamp switch



C100_1A022

The lamp switch controls the following:

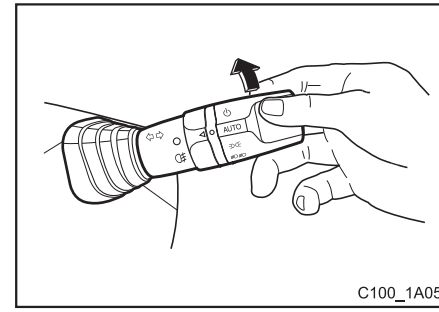
- Headlamps.
- Parking lamps.
- Number plate lamps.
- Instrument panel lamps.

OFF All lamps are off.

The parking lamps, number plate lamps and instrument panel lamps will illuminate. The headlamps will not come on.

The parking lamps, number plate lamps, instrument panel lamps and headlamps will illuminate.

Automatic lamp switch*



C100_1A057

All lamps are off.

AUTO The parking lamps or headlamps will turn on automatically depending on the outside light levels.

Note AUTO is the default position for the lamp switch.

To turn the automatic lamp control off, turn the switch to position off. The switch will return to the AUTO position once released.

To turn the automatic lamp control on, turn the switch to position off again.

The parking lamps, number plate lamps and instrument panel lamps will illuminate. The headlamps will not come on.

The parking lamps, number plate lamps, instrument panel lamps and headlamps will illuminate.

Note

- When the windscreen wipers are turned on with the automatic lamp switch in the AUTO position the headlamps will turn on automatically after 8 wipes.
- To ensure the automatic headlamp control works correctly, avoid covering the sunlight sensor. Refer to *Dashboard layout* in chapter 1A.

Headlamps on reminder

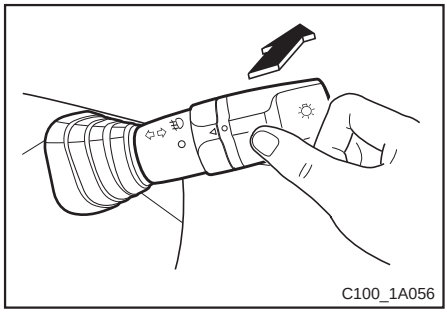
If opening the driver's door with the ignition in the **LOCK** position and the light switch in the or the position, a warning chime will sound. If the light switch is turned off then on again while the chime is sounding the chime will be cancelled.

LIGHTS cont.

High/low beam

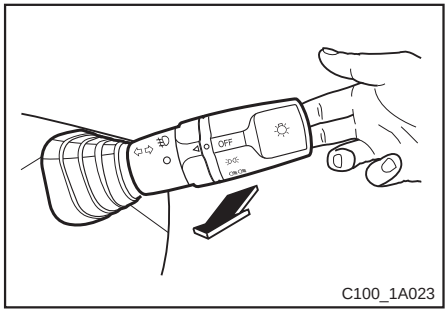
Switching between high and low beam requires the low beam lamps to be on. Push the lever toward the front of the vehicle to switch from low beam to high beam and return the lever to the original position for low beam.

The headlamp high beam indicator lamp on the instrument panel lights up when the headlamps are in high beam.


C100_1A056

Flashing high beam

It is also possible to flash the high beams for signalling purposes by pulling the lever toward you (even with the headlamps switched off). The lights remain in high beam as long as the lever is held in this position.



C100_1A023

Battery saver

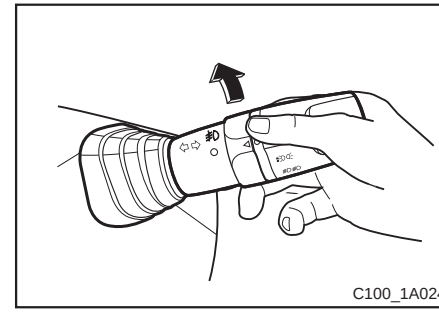
The battery saver prevents the battery from being discharged.

If the headlamps are left in the ON position, they will switch off automatically 10 minutes after the ignition switch is turned to the **LOCK** position.

Note If the lights are switched on 10 minutes after this feature is activated, the battery saver will not function.

LIGHTS cont.

Front fog lamps*


C100_1A024

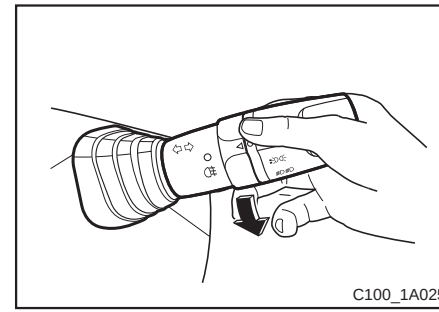
The front fog lamps provide extra illumination to the sides of the road ahead and improve visibility in fog or snow conditions.

To switch the front fog lamps on, make sure the headlamp switch is in the ≫ or ≡D ≡D position, then rotate the ring on the middle of the light switch lever to the ≠D position. The ring will return to its original position when released.

Note The instrument panel front fog lamp indicator illuminates when the front fog lamps are operating.

To switch the front fog lamps off, rotate the ring on the middle of the light switch lever to the ≠D position again and the front fog lamps will switch off.

Rear fog lamps


C100_1A025

The rear fog lamps provide extra illumination at the rear of the vehicle, increasing the visibility of the vehicle to other drivers in fog or snow conditions.

To switch the rear fog lamps on, make sure the headlamp switch is in the ≫ or ≡D ≡D position, then rotate the ring on the middle of the light switch lever to the D≠ position. The ring will return to its original position when released.

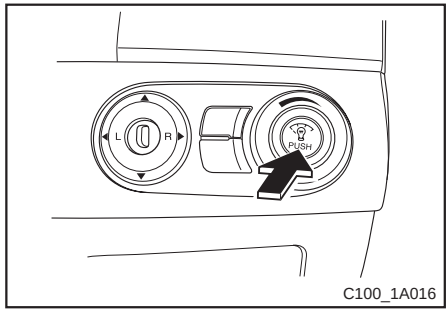
Note The instrument panel rear fog lamp indicator illuminates when the rear fog lamps are operating.

To switch the rear fog lamps off, rotate the ring on the middle of the light switch lever to the D≠ position again and the rear fog lamps will switch off.

Note If the vehicle is equipped with automatic headlamps*, any time the front fog lamps* or the rear fog lamps are turned on, the park lamps and low beam headlamps will turn on automatically.

LIGHTS cont.

Dimmer – instrument lighting



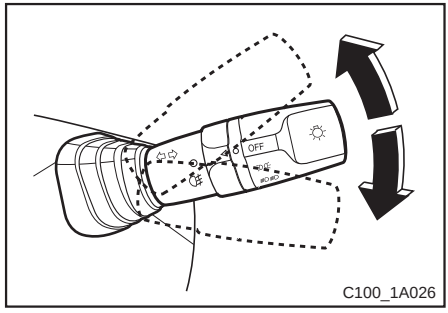
C100_1A016

To adjust the instrument lighting brightness, ensure the headlamps or park lamps are switched on.

- To dim the instrument illumination, push in to extract the button, then rotate it clockwise.
- To brighten the instrument illumination, push in to extract the button, then rotate it anticlockwise.
- Push in to retract the button.

Note When opening the driver door or when pressing the button on the remote keyless entry transmitter, the instrument panel lamps will illuminate automatically and stay illuminated for approximately 30 seconds or until the ignition switch is turned to the **ACC** (accessories) position.

Turn signals



C100_1A026

The turn signal lever is on the right-hand side of the steering column. Push the lever up to signal a left turn and down to signal a right turn.

In some turns (such as changing lanes), the steering wheel is not turned far enough to cancel the turn signal. So, to indicate a lane change, move the lever part way and hold it. The lever will return to the neutral position when you release it.

An arrow on the instrument panel flashes when the turn signals are in operation.

Note When the turn signal lever is moved slightly upward or downward and released, the turn signal lamps will flash automatically three times.

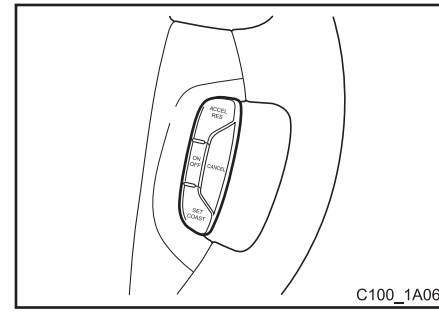
CRUISE CONTROL

Description

The cruise control maintains the speed of the vehicle from approximately 40 km/h and upward without having your foot on the accelerator pedal. When the brake or clutch (manual transmission) pedal is applied or the CANCEL button is pressed the cruise control disengages.

If your vehicle is in cruise control mode when the traction control system begins to limit wheel spin, the cruise control will automatically disengage. When road conditions allow you to safely use it again you may switch the cruise control back on.

To set initial speed



- Press the **ON/OFF** button located on the right hand side of the steering wheel, to switch the cruise control on.
- Accelerate to the desired speed (above 40 km/h).
- Press the **SET/COAST** button and release it. An indicator lamp on the instrument panel will illuminate to show cruise control is maintaining the vehicle's speed.

Take your foot off the accelerator pedal.

To adjust the set speed

There are two ways to increase the set speed:

1. Use the accelerator pedal to get to a higher speed, press the **SET/COAST** button, then release the button and the accelerator pedal. The vehicle now maintains the new set speed.
2. Press and hold the **ACCEL/RES** button until you get to the desired higher speed, and then release the button. To increase a set speed by small amounts, press the **ACCEL/RES** button briefly then release it. Each time you do this the set speed increases by approximately 2 km/h.

There are two ways to reduce the set speed:

1. Press and hold the **SET/COAST** button until you reach the desired lower speed, then release the button.
2. To decrease a set speed by small amounts, press the **SET/COAST** button briefly then release it. Each time you do this the set speed decreases by approximately 2 km/h.

Resuming a set speed

Once a set speed has been disengaged by pressing the brake or clutch (manual transmission) pedal or by pressing the CANCEL button, the speed setting can be resumed. When the vehicle's speed is above 40 km/h press the **ACCEL/RES** button briefly to resume the stored speed.

Note If the **ACCEL/RES** button is held down the vehicle's speed will increase until the button is released.

Passing another vehicle

Depress the accelerator pedal to increase your speed. When you take your foot off the pedal, the vehicle will slow down to the cruise control speed set earlier.

CRUISE CONTROL cont.

Using cruise control on hills

When going up a steep hill, you may have to depress the accelerator pedal to maintain your speed. When going downhill, you may have to brake or shift to a lower gear to decrease the vehicle's speed. Applying the brakes disengages the cruise control.

Switching off the cruise control

There are several ways to switch off the cruise control:

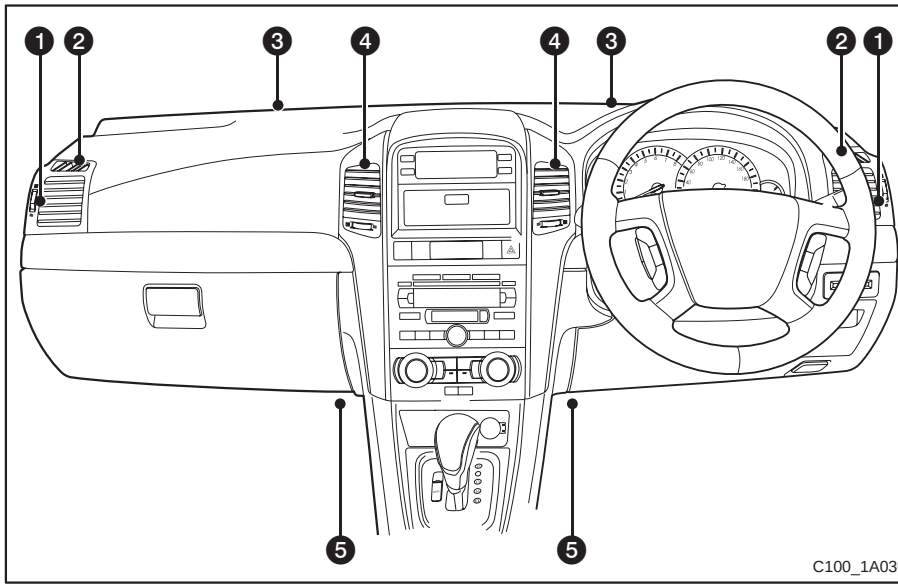
- Depress the brake pedal or clutch pedal (manual transmission) or press the cancel button.
- Press the **ON/OFF** button on the cruise control pad.

Note When the cruise control or the ignition is switched to the **LOCK** position, the cruise control set speed memory is erased.

WARNING

- Do not use the cruise control when road or driving conditions require varying speeds, A consistent speed isn't practical in heavy or varying traffic, or on winding, slippery or rough roads.
- The cruise control does not apply the vehicle's brakes. Therefore the vehicle may gain speed when going down steep hills.
- When climbing steep hills (particularly when towing) it is possible for the vehicle to lose speed. You may need to switch off the cruise control and use the accelerator pedal.

VENTILATION SYSTEM

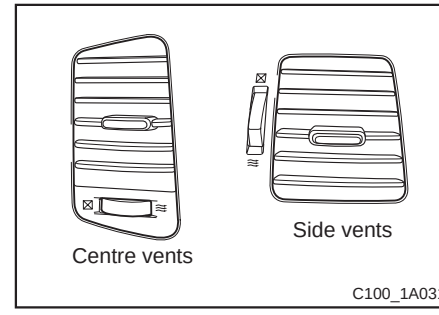


1. Side vents.
2. Front door glass demister vents.
3. Windscreen demister vents.
4. Centre vents.
5. Floor vents.

Air outlets

The direction of air flowing out of the vents can be changed by moving the airflow deflectors up, down, left or right.

Some outlets may be equipped with a shut off wheel.



Centre vents

Rotate the wheel to the left to close the outlet or to the right to open it.

Side vents

Rotate the wheel to the top to close the outlet or to the bottom to open it.

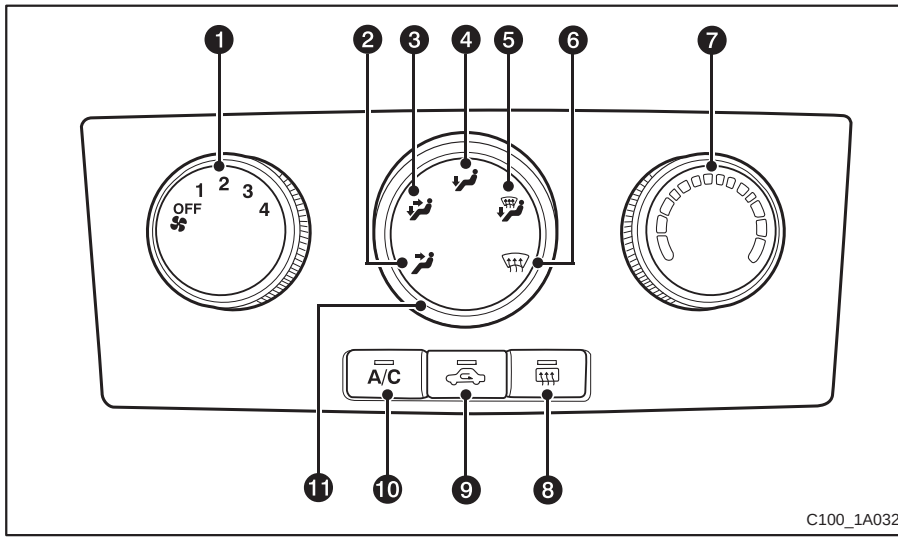
Demister vents

Are located at the base of the windscreen and are controlled by the air outlet selector.

Floor vent

Are located under the dashboard and are controlled by the air outlet selector.

MANUAL HEATING, AIR CONDITIONING✻



1. Fan speed selector.
2. Face level ventilation.
3. Face and floor level ventilation.
4. Floor level ventilation.
5. Floor level and demister.
6. Windscreen demister.
7. Air temperature selector.
8. Rear window demister switch.
9. Air recirculation switch.
10. Air conditioning switch.
11. Air outlet selector.

Air temperature selector

This knob controls the temperature. Turn the temperature knob to the red area for warmer air or to the blue area for cooler air.

Air outlet selector

This knob controls the air delivery mode. Turn the knob to direct air flow through the desired outlets.

Fan speed selector

This knob controls the fan speed. Turn the knob to the right to increase fan speed, or to the left to decrease fan speed. There are five fan settings: **OFF, 1, 2, 3** and **4**.

Fan off setting

When the fan speed selector is turned anticlockwise all the way, the air conditioning system switches off. However, if the recirculation switch is turned off, outside air still comes into the vehicle when it is moving.

MANUAL HEATING, AIR CONDITIONING cont.*

Air outlet selector

Different vents are selected when the air selector is set in the following positions:

Air flows from the four face level outlets in the instrument panel.

The blending mode directs airflow through both the instrument panel outlets and the floor outlets.

This mode also directs airflow through the rear floor outlets.

The heater mode directs most of the airflow through the floor outlets, with some air going to the windscreen and side window demister vents.

This mode also directs airflow through the rear floor outlets.

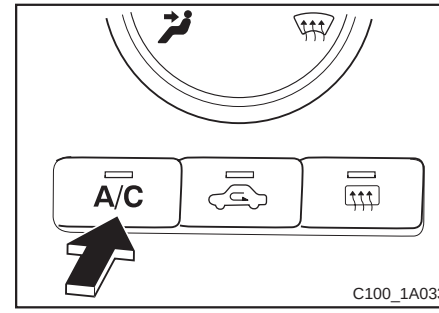
This mode divides airflow equally between the windscreen demister outlets and the floor outlets. A small amount of air will also be directed toward the side windows.

This mode also directs airflow through the rear floor outlets.

Air flows from the window demist and windscreen demist outlets, a small amount is also directed to the side vents.

Air conditioning switch

Press this button to switch the air conditioning on. The engine must be running for the feature to work. Set the fan position to **1**, **2**, **3**, or **4** to begin air circulation. An indicator lamp illuminates on the button when the air conditioning is in use.



Note The fan must be switched on for the air conditioning to work.

Even when the air conditioning system is on, your vehicle will produce warm air if the temperature control knob is set to warm.

Press the air conditioning switch again to switch the air conditioning off.

You may notice water dripping under the vehicle sometimes after driving with air conditioning on. This is normal because your air conditioning system removes moisture from the air inside the cabin.

Because the compressor of the air conditioning system shares the engine power, you may notice a slight change in engine power and performance when the compressor operates.

MANUAL HEATING, AIR CONDITIONING✻ cont.

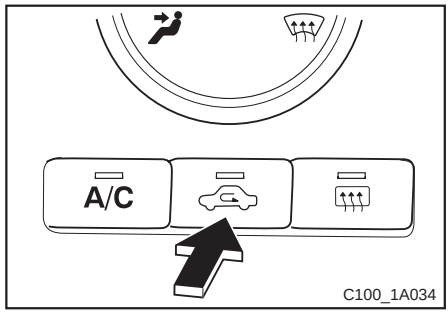
Air recirculation switch

Press the recirculation switch to recirculate the air in your vehicle. This is useful for keeping dust and odours out or when quick heating or cooling is desired.

The indicator lamp in the switch illuminates.

Press the switch again to switch off the recirculation feature and allow outside air into your vehicle.

Using the recirculation setting for an extended period of time may cause the windows to fog up. If this happens, switch the recirculation feature off.

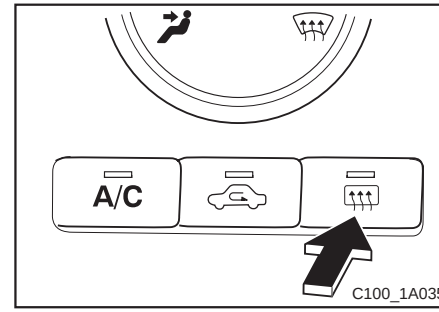


Operating tips

- To conserve fuel, switch off the air conditioner when it is not required.
- Keep the area under the front seat clear of objects to help air circulate through the vehicle.
- In hot weather before using the air conditioning system, open the windows for a few minutes to permit hot air to escape if the vehicle has been parked in direct sunlight.
- For maximum cooling, select the ventilation mode and the highest fan speed. Make sure the air conditioning is turned on. Rotate the temperature control knob to select the coolest temperature and activate the recirculation mode.
- Switch on the air conditioning for a few minutes at least once a week, even in the winter or when the air conditioning system is not being used regularly. This maintains proper lubrication of the compressor and seals, prolonging the service life of the system.
- Driving in stop-and-go traffic may reduce the effectiveness of the air conditioning system.
- To quickly demist the front windscreen, use the demister mode, set the temperature to warm, and set the fan at the highest speed.
- For improved demisting of the windows on rainy days or in high humidity, switch the air conditioning on.
- Windscreen demister mode will operate with the air conditioner on or off.
- Do not use the heating/demisting mode or the demisting mode in extremely humid weather when the temperature control is set to cold.
- If occupants are smoking, it is recommended that recirculation is not used.
- When following another vehicle on dusty roads, or to prevent exhaust fumes or odours entering your vehicle, select recirculation and close the windows.
- When driving on unsealed roads but where the dust is not airborne, select fresh air (with the windows closed) and set the fan preferably on a high speed so that positive air pressure in the vehicle will prevent any dust entry.

MANUAL HEATING, AIR CONDITIONING cont.*

Rear window demister



The ignition must be switched on for this feature to work.

Press this button to demist your rear window. To switch it off press the button again. Otherwise, it will go off by itself after ten minutes. To switch back on just press the button again.

The outside mirrors are heated* when ever the rear demister is activated.

The indicator lamp in the button illuminates when the system is on.

Note Do not use the rear window demister under the following conditions:

- Engine is not running.
- You are just starting your vehicle.
- There is a buildup of snow or ice on the rear window.

Operating the rear window demister under these conditions could drain the battery.

WARNING
Less than clear vision for the driver can lead to an accident resulting in personal injury and damage to your vehicle or other property.

Heating

Use the maximum heating mode for quick heating of the passenger compartment. Do not use maximum heating for lengthy periods, as the interior air may become stale and the windows may fog. To clear the windows switch off the recirculation mode to allow fresh air into the passenger compartment.

For maximum heating:

1. Press recirculation button (indicator illuminates).
2. Turn air distribution knob to or .
3. Turn the temperature control knob all the way to the maximum red area.
4. Turn the fan control knob to the maximum speed.

Passenger compartment pollen filter

A passenger compartment pollen filter is fitted to filter outside air entering the vehicle.

The filter removes contaminants such as pollen and dust from the air entering the vehicle.

Proper maintenance of the passenger compartment pollen filter is required. Refer to the Service/warranty booklet.

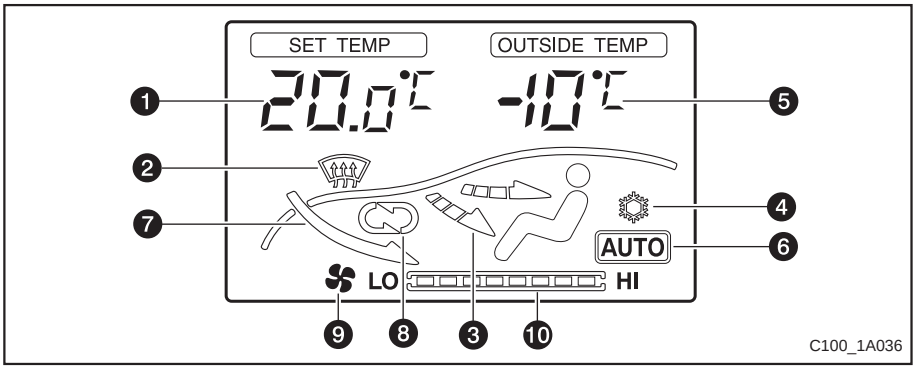
*CLIMATE CONTROL**

Climate control

The fully automatic climate control system controls the interior temperature of your vehicle. It achieves the desired temperature when you select the auto mode.

The desired temperature is controlled by an in-car sensor, coolant temperature, sun sensor and the ambient temperature sensor.

Driver Information Display (DID)*



1. Set temperature.
2. Demist indicator.
3. Air distribution mode indicator.
4. Air conditioning indicator.
5. Outside temperature. Refer to *Driver Information Display (DID)** previously in this chapter.
6. Auto mode indicator.
7. Outside air mode indicator.
8. Recirculation mode indicator.
9. Fan operation indicator.
10. Fan speed indicator.

Air outlet selector

Different vents are selected when the air selector is set in the following positions:

Air flows from the four face level outlets in the instrument panel.

The blending mode directs airflow through both the instrument panel outlets and the floor outlets.

This mode also directs airflow through the rear floor outlets.

The heater mode directs most of the airflow through the floor outlets, with some air going to the windscreen and side window demister vents.

This mode also directs airflow through the rear floor outlets.

This mode divides airflow equally between the windscreen demister outlets and the floor outlets. A small amount of air will also be directed toward the side windows.

This mode also directs airflow through the rear floor outlets.

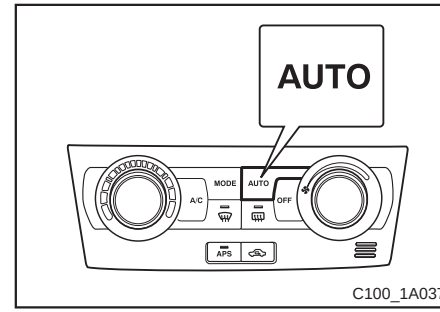
Air flows from the window demist and windscreen demist outlets, a small amount is also directed to the side vents.

CLIMATE CONTROL cont.*

Auto button

When the **AUTO** button is pressed, the interior temperature will be controlled automatically to reach the desired preset temperature. The system will control the air distribution mode, fan speed, air conditioning and recirculation functions automatically.

The **AUTO** mode indicator appears in the Driver Information Display (DID) located in the centre of the dashboard.



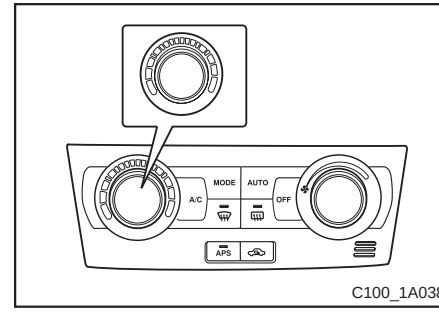
C100_1A037

Setting the desired temperature

Rotate the temperature control knob clockwise to increase the temperature or anticlockwise to decrease the temperature until the desired temperature is displayed.

The temperature can be set between 18 ºC and 32 ºC.

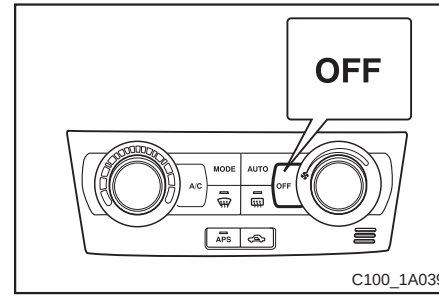
Note When the desired temperature is set at either **HI** or **LO** the fan operates continuously at highest speed.



C100_1A038

Switching off the system

To switch off the automatic temperature control system, press the **OFF** button.

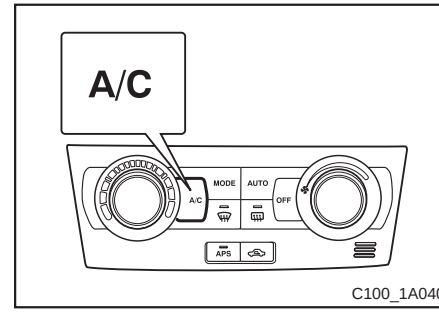


C100_1A039

Manual control A/C button

The **A/C** button switches the air conditioning on or off. AUTO mode is cancelled and the indicator will extinguish when this button is pressed. The A/C indicator ❄ displays on the driver information display (DID) when the air conditioning is on. Refer to *Driver information display*, previously in this chapter.

Press the **A/C** button again to switch the A/C off, or press the **OFF** button to switch the entire system off.



C100_1A040

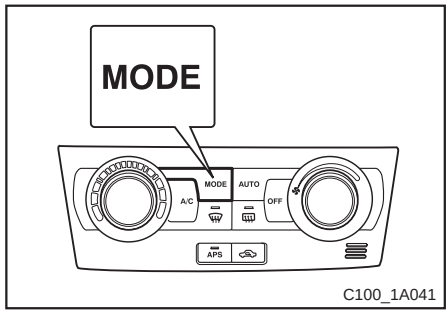
CLIMATE CONTROL cont.*

Air distribution mode change

If the **MODE** button is pressed, **AUTO** mode is cancelled and the air distribution mode is changed in the following sequence:

FRONT → BI-LEVEL → FLOOR → FLOOR/DEMIST .

Refer to *Air outlet selector* previously in this chapter.

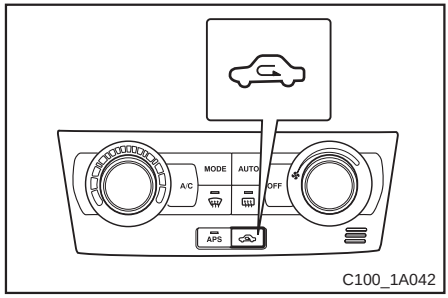


C100_1A041

Recirculation mode

Pressing this button selects either outside air or recirculated inside air.

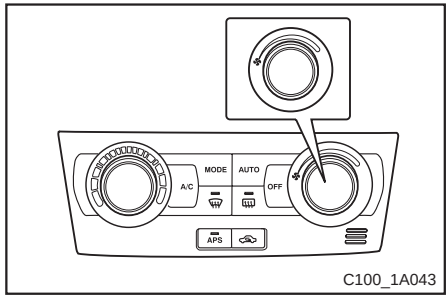
Refer to *Air recirculation* previously in this chapter.



C100_1A042

Fan speed control

Adjust the fan speed by rotating the control knob, this also cancels the auto mode.

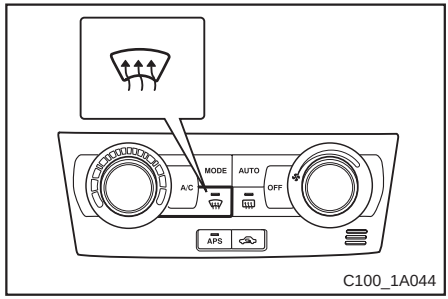


C100_1A043

Demister

Press the demister button to demist the windscreen. The A/C and outside air modes are automatically switched on. Adjust the fan speed using the fan speed control knob.

This mode can be cancelled by pressing the demist button again, air distribution mode button or the **AUTO** button.



C100_1A044

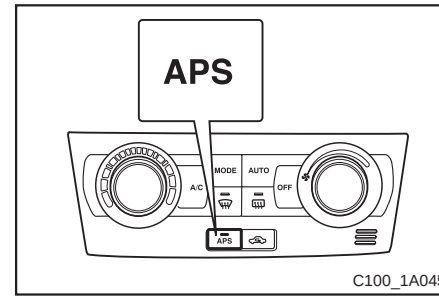
CLIMATE CONTROL cont.*

APS

The Air Purity Sensor (APS) automatically draws outside air into the passenger compartment or converts to recirculation mode to prevent exhaust gas from the outside contaminating air within the passenger compartment.

Press the **APS** button to activate the APS mode, the indicator lamp on the button illuminates.

To switch off the APS mode, press the button again, the indicator lamp goes off to confirm the APS is inactive.

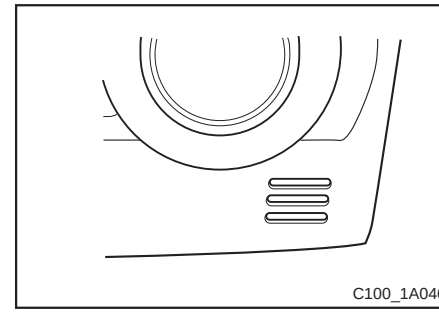


C100_1A045

Note The windows may fog if the APS mode is used for extended periods, if this happens switch off the APS mode and switch to the outside air mode.

Temperature sensor

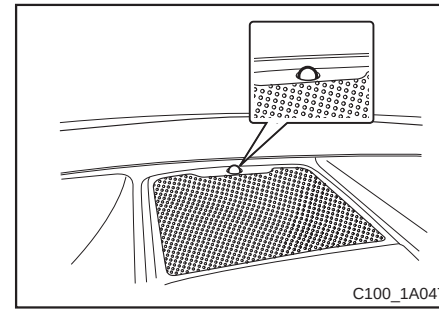
Temperature levels sampled from the interior of the vehicle are used to establish ventilation system requirements when operating in AUTO mode.


C100_1A046

Sunlight sensor

The sunlight sensor is located in front of the windscreen demister vents.

This sensor detects sunlight when operating in AUTO mode. Do not cover the sensor or the climate control will receive the wrong information.


C100_1A047

Passenger compartment pollen filter

A passenger compartment pollen filter is fitted to filter outside air entering the vehicle.

The filter removes contaminants such as pollen and dust from the air entering the vehicle.

Proper maintenance of the passenger compartment pollen filter is required. Refer to the Service/warranty booklet.

CHAPTER 1B

Audio

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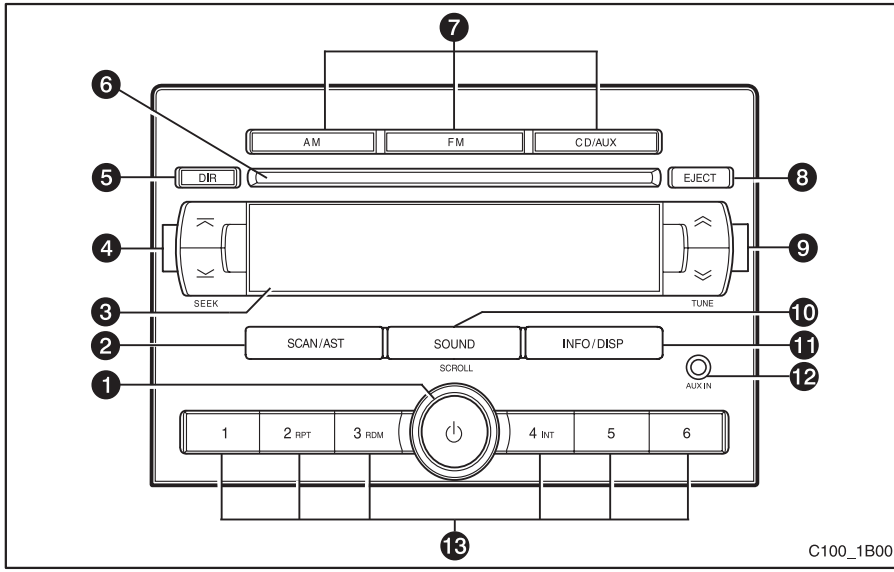
*The asterisk signifies equipment options not in all vehicles, model variants, engine options, optional equipment and Genuine Holden Accessories (and Parts).

OVERVIEW

CAPTIVA SX (SINGLE CD)

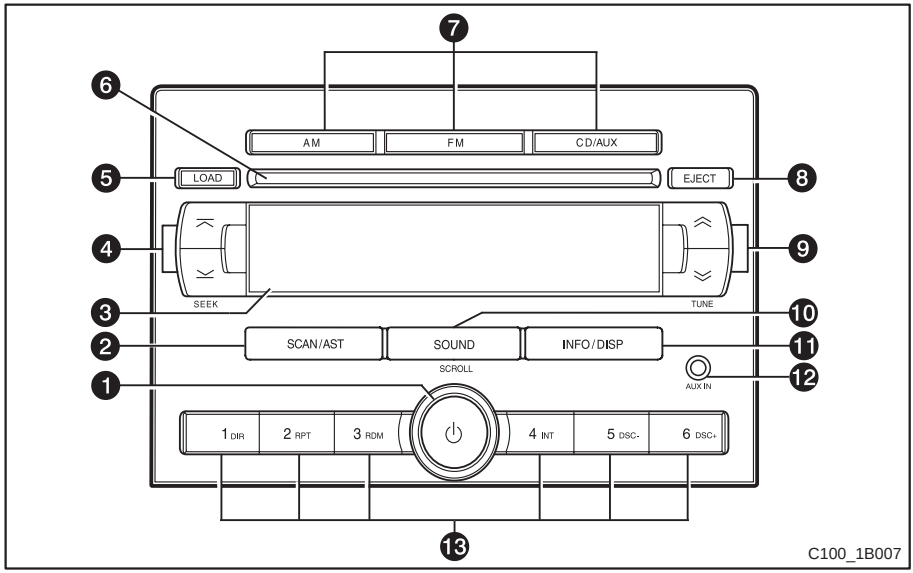


Display and functions:

1. Power/volume and mute rotary button.
2. SCAN/AST button.
3. Display screen.
4. Seek tuning buttons.
5. Directory button.
6. CD/MP3 disc slot.
7. Input source buttons.
8. Disc eject button.
9. Tune and previous/next buttons.
10. Sound mode selection button.
11. INFO/DISP button.
12. Auxiliary input socket.
13. Preset radio station buttons and CD/MP3 mode function buttons:
    - Repeat play button.
    - Random play button.
    - Intro scan button.

OVERVIEW cont.

CAPTIVA CX AND LX (6 CD CHANGER)*



Display and functions:

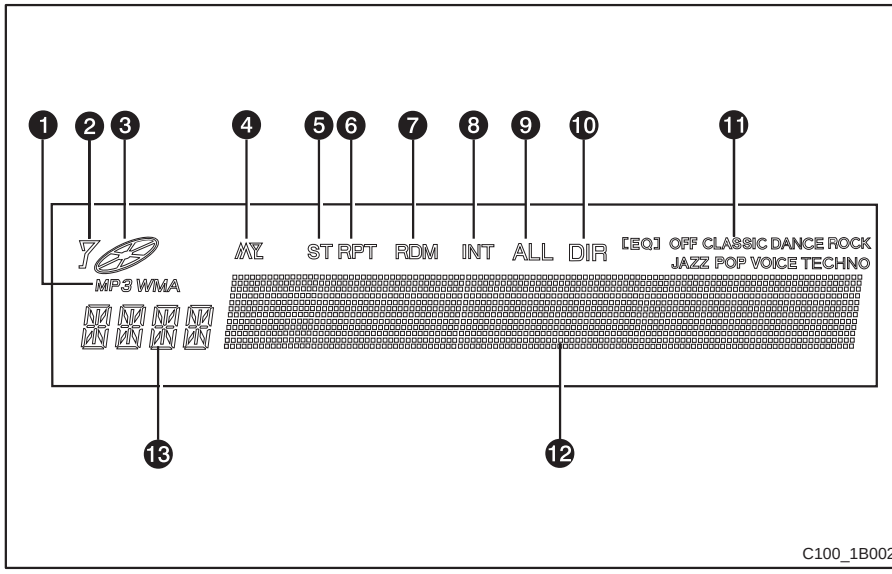
1. Power/volume and mute rotary button.
2. SCAN/AST button.
3. Display screen.
4. Seek tuning buttons.
5. Load button.
6. CD/MP3 disc slot.
7. Input source buttons.
8. Disc eject button.
9. Tune and previous/next buttons.
10. Sound mode selection button.
11. INFO/DISP button.
12. Auxiliary input socket.
13. Preset radio station buttons and CD/MP3 mode function buttons:

- Directory button.
- Repeat play button.
- Random play button.
- Intro scan button.
- Previous disc button.
- Next disc button.

Note Refer to *6 CD changer operation* further on in this chapter.

OVERVIEW cont.

AUDIO DISPLAY SCREEN



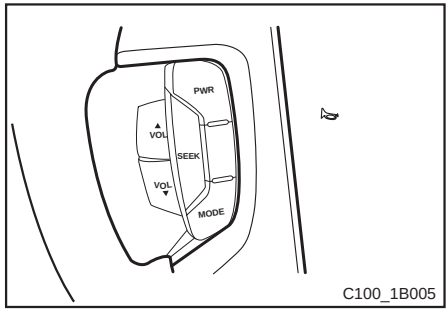
Display screen layout:

1. MP3/WMA disc play indicator.
2. Radio mode indicator.
3. Disc insert indicator.
4. Weak FM signal indicator.
5. FM stereo ON indicator.
6. Repeat function indicator.
7. Random scan function indicator.
8. Intro function indicator.
9. MP3 play mode indicator (all directories on the disc).
10. MP3 play mode indicator (directory of the disc only).
11. Equaliser mode indicator.
12. Mode indicator (CD, AUX, MP3 or FM/AM).
13. Alphanumeric display screen.

STEERING WHEEL REMOTE CONTROLS

Power button ON/OFF and mute function

1. To turn the audio system ON using the steering wheel remote control, press the **PWR** button.
2. Pressing the power button again will enable the mute function or disable the mute function.
3. To turn OFF the audio system, press and hold the power button.

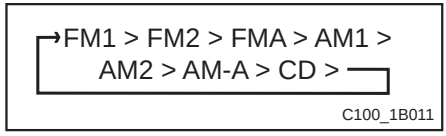


C100_1B005

Mode button/transition

1. To change the mode function using the steering wheel remote control, press the **MODE** button.

   Each time the **MODE** button is pressed, the mode function will change in the sequence shown:



C100_1B011

SEEK button: in radio mode

Next preset station:

1. Press the **SEEK** button for less than 0.5 second to select the next preset station.

Seek tuning up:

1. To automatically select the next strongest radio frequency from the current frequency, press and hold the **SEEK** button for more than 0.5 second.

SEEK button: in CD mode

Track up:

1. To play the next available audio track on the current CD press the **SEEK** button once for less than 0.5 second.

   Each time the **SEEK** button is pressed, the audio system will advance to the next available audio track.
2. If the **SEEK** button is pressed when the last audio track on a CD is being played, the audio system will return to the first audio track on that CD.

Cue (fast forward)

1. To search for a point within the current audio track being played, press and hold the **SEEK** button for more than 0.5 second.

   The playback will increase speed to 6 times normal playback speed.
2. Normal playback will resume when the **SEEK** button is released.

STEERING WHEEL REMOTE CONTROLS cont.

Volume UP and DOWN button

1. To increase the audio system volume, press the **+** button.

   The volume will increase and the volume level will be shown in the display screen ❸. The maximum volume level that can be displayed is 50.

2. To decrease the audio system volume, press the **–** button.

   The volume will decrease and the volume level will be shown on the display screen ❸.

IMPORTANT INFORMATION

SECURITY CODE

Your audio unit includes an electronically coded security system. This security system relies on a unique PIN Code indicated on your security card, to enable operation of your audio unit. The PIN Code will only need to be entered if the vehicle's battery has been disconnected or if the audio unit has been removed from the vehicle. Refer to the security release procedure for the instructions of this procedure.

As the PIN Code is the only means of enabling operation of the audio unit, we recommend that the Security Card is kept in a secure location.

Note

- Do not leave the security card in the glovebox of your vehicle.
- The PIN Code should be written down and kept with other important documents.

If the Security Card is lost and the PIN Code has not been recorded, the PIN Code can be requested from your GM Holden Dealer. Proof of ownership will be requested before the PIN Code is supplied. There may be a charge for this service.

Security release procedure

Audio system PIN Code:

1. Switch the ignition to the **ON** position.
2. Switch on the audio system, if turned off.
3. The display will flash **CODE - - - -**.
4. Enter the PIN code obtained from the security card using the preset buttons.

Example:

If the PIN code belonging to the audio system is 3651.

Press preset button 3 – **CODE - - - 3** is displayed.

Press preset button 6 – **CODE - - 36** is displayed.

Press preset button 5 – **CODE - 365** is displayed.

Press preset button 1 – **CODE 3651** is displayed.

5. After a short pause the audio system will become active.

IMPORTANT INFORMATION cont.

Care of your audio system

Your audio system has been developed and manufactured with great care and should be treated with care.

Observing the recommendations listed below will prevent your warranty from expiring prematurely and ensure your enjoyment for many years. Heed the following when using your audio system:

- Never try to open the audio system. Improper handling may damage the audio system.
- Never use aggressive chemicals, cleaning liquids or agents to clean the audio system. To clean your audio system, use a soft cloth moistened with a mild soap solution.
- Do not paint or colour the audio system. Paint may make moving parts sticky and impair correct functionality.
- Do not store combustible liquids, gases or explosives in the same room with the audio system, its parts or accessories.

The audio system should only be serviced by an approved repairer. Incorrect installation or servicing of the audio system may have dangerous consequences and result in your warranty becoming void.

SWITCHING ON/OFF

Power on

When the power is OFF press the ⏻ power volume and mute rotary button ❶ to activate the audio system. The radio, CD or MP3 function will be shown on the display screen. The operating mode will be the same as before the audio system was turned off.

Power off

When the power is ON press and hold the ⏻ power/volume and mute rotary button ❶ to turn the system OFF.

AUDIO SETTINGS

Volume control

Rotate the ⏻ power/volume and mute rotary button ❶ clockwise to increase the volume and anticlockwise to decrease the volume. The volume level will appear as a numeric value on the display screen ❸.

After a period of 5 seconds of inactivity, the display screen will return to the original content.

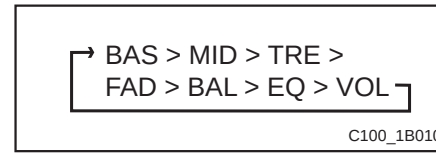
Volume mute

When the power is ON press the ⏻ power/volume and mute rotary button ❶ briefly to activate the audio mute function. The mute function can be deactivated by selecting a new function.

Sound mode selection

To select the required sound mode, press the SOUND button ❿.

The sound mode indicator and the numeric signal value will appear on the display screen ❸. Each time this button is pressed, the sound mode function changes shown:



When the desired mode is displayed, adjustment is achieved by rotating the ⏻ power/volume and mute rotary button ❶.

After a period of 5 seconds of inactivity, the display screen will return to the original content.

Note

- The audio system can be operated with the ignition key in the **ACC** or **ON** position.
- The disc eject button ❽ remains active to allow a disc to be ejected after the power has been turned off.

The audio system can be activated by:

- Pressing the ⏻ power/volume and mute rotary button.
- Inserting a CD or MP3 disc.
- Pressing the **AM** or **FM** buttons.
- Pressing the **CD/AUX** button.

Bass control

Bass control is used to adjust the bass (low frequency) sound quality.

1. Select the bass control mode using the SOUND button ❿.
2. When **BAS** appears on the display screen ❸, rotate the ⏻ power/volume and mute rotary button ❶ clockwise to increase the bass level, anticlockwise to decrease the bass level. The bass level is displayed as a number between **-5** to **+5**. **0** indicates the mid-point sound level. The highest bass level is displayed as **+5** and the lowest bass level is displayed as **-5**.

After a period of 5 seconds of inactivity, the display screen will return to the original content.

AUDIO SETTINGS cont.

Treble control

Treble control is used to control the treble (high frequency) sound quality.

1. Select the treble control mode using the SOUND button ❿.
2. When **TRE** appears on the display screen ❸, rotate the ⏻ power/volume and mute rotary button ❶ clockwise to increase the treble, anticlockwise to decrease the treble. The treble level is displayed as a number between **-5** to **+5**. **0** indicates the mid-point sound level. The highest treble level is displayed as **+5** and the lowest treble level is displayed as **-5**.

After a period of 5 seconds of inactivity, the display screen will return to the original content.

Fader control

Fader control adjusts the volume separation between the front and rear audio speakers.

1. Select the fader control mode using the SOUND button ❿.

   The display screen ❸ will show **FAD** front or rear depending on the last setting used.
2. Rotate the ⏻ power/volume and mute rotary button ❶ clockwise to bias the volume toward the front speakers.

   The fader level display will change from **FRONT 01** to **FRONT 15**.
3. To bias the volume toward the rear speakers, rotate the ⏻ power/volume and mute rotary button ❶ anticlockwise.

   The fader level display will change from **REAR 01** to **REAR 15**.

   When the fader level display shows **FAD 0**, the volume level is centred between the front and rear speakers.

After a period of 5 seconds of inactivity, the display screen will return to the original content.

Balance control

Balance control adjusts the volume separation between left and right audio speakers.

1. Select the balance control mode using the SOUND button ❿.

   The display screen ❸ will show **BAL** right or left depending on the last setting used.
2. Rotate the ⏻ power/volume and mute rotary button ❶ clockwise to bias the volume to the right audio speakers.

   The balance level display will change from **RIGHT 01** to **RIGHT 15**.
3. To bias the volume to the left speakers, rotate the ⏻ power/volume and mute rotary button ❶ anticlockwise.

   The balance level display will change from **LEFT 01** to **LEFT 15**.

   When the balance level display shows **BAL 0**, the volume level is centred between the left and right audio speakers.

After a period of 5 seconds of inactivity, the display screen will return to the original content.

AUDIO SETTINGS cont.

EQ music style control

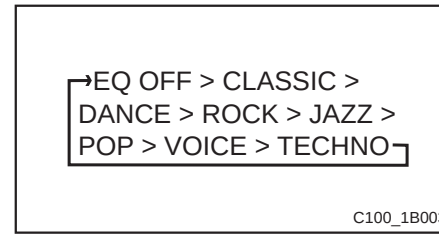
EQ is used to select between pre-defined sound equaliser settings.

1. Select the EQ control mode using the SOUND button ❿.
2. When the current EQ mode appears on the display screen, rotate the ⏻ power/volume and mute rotary button ❶ clockwise or anticlockwise to change the EQ music style.

Each time the power/volume and mute rotary button ❶ is rotated, the EQ mode will change shown:

Note The current EQ mode is shown on the display screen.

After a period of 5 seconds of inactivity, the display screen will return to the original content.



RADIO OPERATION

1. Press the ⏻ power/volume and mute rotary button ❶.
2. Press the [AM] button ❼ to select AM1, AM2 or AM-A.
3. Press the [FM] button ❼ to select FM1, FM2 or FM-A.

Manual tuning

1. Choose either AM or FM band using the [AM] or [FM] buttons ❼.
2. Use the ⩓ ⩔ buttons ❾ to increase or decrease the frequency one step at a time. The frequency of the AM band changes in 9 KHz increments and the frequency of the FM band changes in 0.1 MHz increments.

Automatic tuning

1. Use the ⩓ ⩔ buttons ❹ to search for a receivable station.
2. To search for the next receivable station push and hold for more then one second either seek up or down arrow.

Automatic tuning sensitivity

When a seek tuning search is initiated, the radio automatically searches for the stronger (local) stations. After the radio has searched the entire band range once (i.e. 87.5 - 108.0 MHz for FM and 522 - 1710 kHz for AM), it will automatically switch to searching for all stations (including weaker stations).

Scan tuning

Press the [SCAN/AST] button ❷ to scan for receivable stations. The indicated station will be displayed for 5 seconds after which the next receivable station will be displayed. Scan tuning can be stopped by initiating any other mode of tuning.

Preset tuning

To select a preset station stored on the preset buttons in **FM1, FM2, FM-A, AM1, AM2** and **AM-A** bands, press the corresponding preset radio station button ⓭ for less than 1 second.

How to store stations

Auto store

The [SCAN/AST] button ❷ enables stations to be stored automatically.

1. When the [SCAN/AST] button ❷ is pressed for more than 2 seconds, it will scan the entire band range and store the 6 strongest stations by order of frequency, on the AM-A or FM-A band.

The display screen ❸ will show **AST SCANNING** the word **SCANNING** will be flashing. Stored stations will flash for a short time on the display screen in sequence.

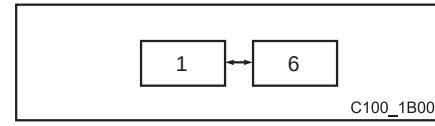
Once all the stations have been displayed, preset station 1 will play on the respective auto store band. Press the **AM** or **FM** buttons to cancel automatic store.

Note AM-A and FM-A represent the auto store preset stations for the respective band.

RADIO OPERATION cont.

Manual memory

1. Tune in the desired station using any of the tuning modes listed under “How to tune a station”.
2. Press and hold the desired preset radio station button ⓭ for longer than 2 seconds.
   The radio will mute and a short chime will be heard when the station has been set.



   A maximum of 18 FM stations can be stored in this way; six on each of the **FM-1, FM-2** and **FM-A** bands.
   A maximum of 18 AM stations can be stored in this way; six on each of the **AM-1, AM-2** and **AM-A** bands.
   Note Any stations manually stored on **AM-A** or **FM-A** will be over written by auto store function.

RADIO RECEPTION

Antenna

Refer to *Antenna information* further on in this chapter.

Radio reception

Due to varying reception locations, audio systems have performance limitations that may on occasions create the impression that your radio is malfunctioning.

AM and FM

There are two types of radio broadcasts in Australia. Amplitude Modulation (AM) in which the amplitude of the signal is varied to produce the sound and Frequency Modulation (FM) in which the frequency is varied to produce the sound.

Range

AM broadcasts tend to follow the earth’s curvature and also reflect from the upper atmosphere which enables long range reception especially after sunset.

FM transmissions are basically line-of-sight (similar to TV signals) and are reflected by buildings, mountains etc. but not by the upper atmosphere.

RADIO OPERATION cont.

Interference

Interference is caused by local electrical disturbances. This can affect the amplitude of the signal being received.

AM signals are more prone to this type of interference than FM signals. This type of interference has little or no effect on the frequency of the received signal thus AM is susceptible to interference from power lines, fluorescent lighting, neon signs, traffic light control circuits, overhead tram wires and electrical storms.

With FM reception these amplitude variations are filtered out leaving a relatively clear signal, (refer to *Peculiarities of FM mobile reception* below) making this one of the major advantages of FM broadcasts.

Peculiarities of FM mobile reception

A mobile FM receiver can not be expected to continuously provide the quality of FM reception you may have experienced on your home receiver. Contrary to popular opinion, FM broadcasts are not static free, and although your new radio has a built-in electronic interference absorption circuit some static will be evident from time to time especially in areas without a direct line of sight to the transmitter.

Your radio is also equipped with a soft mute function. The purpose of this is to attenuate the treble and audio level in weak signal areas to reduce the annoying background hiss which is customary to weaker FM reception. There are two phenomena peculiar to FM reception:

- **Flutter** – As FM signals reflect off solid objects it is possible to pass through areas of **SHADOW** caused by tall buildings or hilly terrain which effectively blocks out the signal. As the vehicle passes in and out of shadow areas the level of signal will vary at a rapid rate, creating a flutter type of interference to the signal.
- **Distortion (multipath)** – Distortion may occur when the direct signal from the transmitter and a reflected signal reach the antenna at the same time and either cancel or aid each other, like ghosting on a TV. This results in intermittent distortion of the signal while moving or constant distortion when stationary such as at a traffic light or when parked.

  Should this distortion occur while stationary, moving the vehicle approximately 1 or 2 meters would on most occasions correct the problem. Circuitry has also been included in this radio to reduce this type of distortion.

SINGLE CD OPERATION

CD player operation

1. Press the ⏻ power/volume and mute rotary button ❶ or insert a CD to activate the audio system.
2. If no CD is in the CD/MP3 disc slot insert a CD, label side upwards into the CD/MP3 disc insert slot ❻.

The audio system will automatically begin playing the CD disc from the first track.

3. If a CD is already inserted in the disc insert slot ❻, press the CD/AUX button ❼. If a CD had previously been played, then the audio system will automatically continue from the last track you listened to.
4. To eject the CD, press the EJECT button ❽. The CD can be ejected when the audio system or ignition is turned off.

If an ejected CD disc is not removed from the disc insert slot ❻ within 10 seconds of being ejected, the CD disc will automatically reload.

After the automatic reload the audio system will not revert to CD playback but will remain on the current mode of operation.

5. The CD play back will toggle between CD source and auxiliary input source by pressing the CD/AUX button ❼.

After the CD is ejected the audio system will revert to the last used operating mode.

Track search

Use the ⏫⏬ buttons ❾ to make quick selections of audio tracks from your CD.

1. To skip the current CD audio track being played for the next or preceding available track, press the ⏫⏬ buttons ❾ up or down arrows for less than 1 second.

   Each time you press the ⏫⏬ button ❾, the audio system skips to the next or preceding CD audio track.

Cue and review

This function allows desired point-search within an audio track at a faster than normal playback speed.

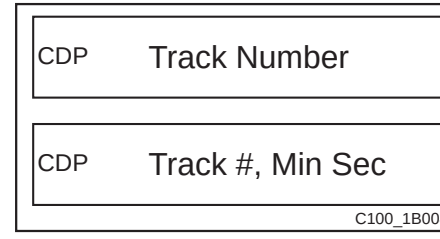
1. To search for the desired point within the audio track, press and hold the ⏫⏬ buttons ❾.

   The audio volume is automatically reduced and the CD will play at a rate 6 times faster than normal playback speed.
2. When the CD reaches the desired point within the audio track, release the ⏫⏬ buttons ❾ and normal play speed will resume.

CD display

The INFO/DISP button ⓫ allows switching between two different available display modes for CD playback.

The display screen ❸ will toggle between these two displays with each press and hold of the INFO/DISP button ⓫.



SINGLE CD OPERATION cont.

Repeat play

1. To repeatedly listen to the current CD audio track, press the 2 RPT button grouped with the preset radio station and CD/MP3 mode function buttons ⓭.

   RPT will appear on the display screen ❸ and the current audio track will be played repeatedly until the function is cancelled.

Random play

1. To play a CD audio tracks in random order, press the 3 RDM button grouped with the preset radio station and CD/MP3 mode function buttons ⓬.

   RDM will appear on the display screen ❸ and the audio system will play the CD audio tracks in random order.

   By using the track search function while the audio system is in random mode, will initiate a new random play selection of audio tracks is initiated.

   Note To cancel **RPT, RDM** or **INT** either press the same button again or choose one of the other two modes.

Track introduction

1. To quickly and conveniently scan the CD disc for a desired audio track, press the 4 INT button grouped with the preset radio station and CD/MP3 mode function buttons ⓭. **INTRO** will appear on the display screen ❸ and the audio system will play the first few seconds of each audio track on the CD disc.
2. When the desired audio track introduction is played, press the 4 INT button grouped with the preset radio station and CD/MP3 mode function buttons ⓭ again and normal playback will resume. If no audio track is selected after the introductions have been played, the system will revert to normal play mode from the track that initiated the **INTRO** function.

MP3 PLAYER OPERATION

1. Press the ⏻ power/volume and mute rotary button ❶ or press the CD/AUX button ❼ or insert an MP3 disc to activate the audio system.
2. If no MP3 disc is in the CD/MP3 disc slot insert a MP3 disc, label side upwards into the CD/MP3 disc slot ❻.

   The audio system will automatically begin playing the MP3 disc from the first file.
3. If a MP3 disc is already inserted in the CD/MP3 disc insert slot ❻, press the CD/AUX button ❼. If a MP3 disc had previously been played, then the audio system will automatically continue from the last track you listened to.

   MP3 will appear on the display screen ❸.
4. To eject the MP3 disc, press the EJECT button ❽.

   If an ejected MP3 disc is not removed from the disc insert slot ❻ within 10 seconds of being ejected, the MP3 disc will automatically reload.

   After the automatic reload the audio system will not revert to MP3 playback, but will remain on the current mode of operation.

   After the MP3 disc is ejected the audio system will revert to the last used operating mode.

See notes on the following page.

SINGLE CD OPERATION cont.

Note

- This audio system will support the playback of audio files recorded on various formats of recordable media. These include CD-R and CD-RW.
- The ability of the audio system to play back the recorded audio files is dependant on a number of factors. These include:
- The type of CD-R/CD-RW media used.
- The surface condition of the CD.
- The condition of the CD writer used to produce the CD.
- The software used to produce the CD.
- If a recorded CD with a non-MP3 format audio file is inserted into the audio unit the message **DISC ERROR** will be displayed.
- The audio system will handle WMA files in the same way as MP3 files.

MP3 file name display

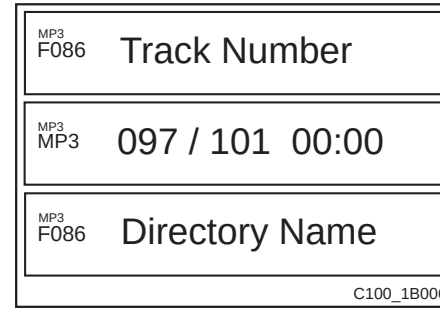
When a disc is inserted into the disc insert slot ❻ the audio system checks which type of media, audio CD or MP3 is inserted. The type of media will appear on the display screen ❸.

If an MP3 disc has been inserted, the audio file name and track number will appear on the display screen ❸. The file name will be displayed in a scrolled manner. Track names longer than 32 characters will be shortened.

The file name will only be displayed if the MP3 disc has been created with the track title function activated.

MP3 display mode button

1. To change the information appearing on the display screen ❸ while the audio system is in MP3 mode, press and hold the INFO/DISP button ⓫.
2. The display screen ❸ will toggle between these three displays with each press of the INFO/DISP button ❸.



Directory mode selection button

1. The DIR button ❺ toggles between the entire MP3 disc and the selected file album/directory. When **DIR** appears on the display the current MP3 audio album/ directory will be played repeatedly until the function is cancelled.

   When **ALL** appears on the display, all tracks on the disc will be played in sequence.

SINGLE CD OPERATION cont.

Repeat play

1. To repeatedly listen to the current MP3 audio file, press the 2 RPT button grouped with the preset radio station and CD/MP3 mode function buttons ⓬.

   RPT will appear on the display screen ❸ and the current audio file will be played repeatedly until the function is cancelled.

   Note

   - When **DIR** appears on the display, the **RPT, RDM, INT** functions will be performed on the selected album/directory.
   - When **ALL** appears on the display the **RPT, RDM, INT** functions will be performed on the entire MP3 disc.

Random play

1. To play MP3 disc audio files in random order, press the 3 RDM button grouped with the preset radio station and CD/MP3 mode function buttons ⓭. **RDM** will appear on the display screen ❸.

   By using the track search function while the audio system is in random mode, a new random play selection of audio files is initiated.

   Note To cancel **RPT, RDM** or **INT** either press the same button again or choose one of the other two modes.

Track introduction

1. To quickly and conveniently scan the MP3 disc for a desired audio file, press the 4 INT button grouped with the preset radio station and CD/MP3 mode function buttons ⓭. **INTRO** will appear on the display screen ❸ and the audio system will play the first few seconds of each audio file on the MP3 disc.
2. When the desired audio file introduction is played, press the 4 INT button grouped with the preset radio station and CD/MP3 mode function buttons ⓭ again and normal playback will resume.

   If no audio file is selected after the audio file introductions have been played, the audio system will revert to normal play mode from the audio file that the **INTRO** function was initiated from.

MP3 file up and down

This function enables you to quickly select an MP3 audio file from your MP3 disc.

1. To skip the current MP3 audio file for the next or preceding file, press the tune and previous/next buttons ❾ up or down arrows, for less than 1 second. Each time you press the tune and previous/next track buttons ❾ the audio system skips to the next or preceding available MP3 audio file.
2. Pressing and holding the tune and previous/next track buttons ❾ for more than 1 second will increase the track skipping speed until the button is released.

SINGLE CD OPERATION cont.

Directory up and down

For this function to operate, the MP3 disc must be recorded with multiple audio file directories or albums.

1. To change the directory, press the ⩚ buttons ❹. The selected directory will appear briefly on the display screen ❸. The display will then revert to the original selected display mode.

   If the MP3 disc does not have any directories, it will be treated as one directory called root directory.

   Once the first or last directory/album is exceeded, the audio system will roll to the opposite end of the directory structure then automatically start playing the first MP3 file within that directory.

   Note The audio system is designed to support multi-session recorded MP3 CD discs. However there may be a brief delay before playback begins.

6 CD CHANGER OPERATION*

Note The 6 stacker CD player is operated the same as the single CD player except for the added features listed below.

Loading

Press the **LOAD** button to load CDs into the CD player. The player will hold up to six CDs.

1. Press and release the **LOAD** button. A message to select a slot number from 1 to 6 will be displayed.
2. Press the desired slot number and wait for the message to insert the disc.
3. Insert the CD part way into the slot, label side up then the player will pull the CD in.

To insert multiple CDs use the following procedure:

1. Press and hold the **LOAD** button for two seconds then you will hear a beep and a message to load multiple discs will be displayed.
2. Follow the displayed instructions for when to insert the discs.
3. Press the **LOAD** button again to cancel loading more CDs.

As each CD is inserted, **CDP** will be displayed and as each CD is loading **FILECHECK** will be displayed.

Once playback begins, the track and track number will be displayed.

If the ignition or radio is switched off with a CD in the player, it will stay in the player, when a CD is in the player and the ignition is switched on, the radio must be switched on before the current CD will start to play. When the ignition and radio are switched on, the CD will start playing from where it stopped, if it was the last selected audio source.

The CD player can play the smaller 8 cm single CDs with an adaptor ring. Full size CDs and the smaller CDs are loaded in the same manner.

If playing a CD-R, the sound quality may be reduced due to the CD-R quality, the method of recording, the quality of the music that has been recorded, and the way the CD-R has been handled. There may be an increase in skipping, difficulty in finding tracks, and/or difficulty in loading and ejecting. If these problems occur, check the bottom surface of the CD. If the surface of the CD is damaged, such as cracked, broken or scratched, the CD will not play properly. If the surface of the CD is dirty, see care of CDs in this chapter for more information.

If there is no apparent damage, try a known good CD.

Do not add a label to the CD, it could get caught in the CD player, If a CD requires a label try using a CD marking pen instead.

Note If a disc error occurs repeatedly see your Holden Dealer.

LOAD: Press this button to load CDs into the CD player, the player will hold six CDs.

DSC - (Previous CD): Press this button to go back to the start of the previous CD.

DCS + (Next CD): Press this button to go forward to the start of the next CD.

AUX OPERATION

Auxiliary mode operation

This function enables you listen to audio contents from external portable devices that are connected to the auxiliary input socket located on the front of the audio system panel.

1. Connect the output socket of the portable device to the auxiliary input socket ⓬ on the audio system front panel.
2. Switch on the portable device.
3. Press the CD/AUX button to select the auxiliary function.
4. Control the volume using either the portable device or the volume control on the audio system front panel.

Using the auxiliary input socket

The auxiliary input socket can also accept a mobile phone connector. When a mobile phone is connected to the auxiliary input socket you will be able to hear the received conversation through the vehicle's audio system.

The auxiliary input socket is not an audio output, do not connect headphones into the audio system front panel.

To use an external portable device you will need a 3.5 mm stereo male connector and a lead to the portable device.

Press the CD/AUX button once to play a CD. Press this button again to begin playing audio from the connected external portable device. Once in this mode **AUX INPUT** will appear on the audio system display.

Rotate the ⏻ power/volume and mute rotary button clockwise or anticlockwise to increase or decrease the volume of the portable player. You may need to make additional volume adjustments to the external portable device if the volume is not loud or soft enough.

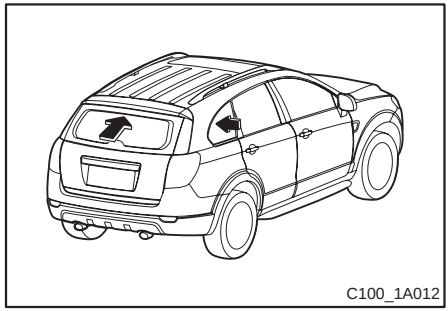
WARNING

Do not set up or operate portable devices while the vehicle is being driven.

ANTENNA INFORMATION

Antenna

The AM antenna is incorporated in the right hand rear quarter window and the FM antenna is incorporated in the tailgate window. The FM antenna is part of the heated rear window demister pattern. This type of antenna may be adversely affected by dirt on the inside of the window or damage to the antenna pattern.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WARNING

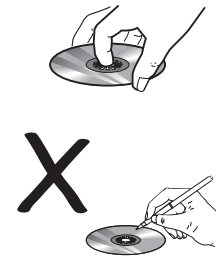
- Do not apply aftermarket glass tinting. The metallic film in some tinting materials will interfere with or distort the incoming radio reception. The repairs will not be covered by your warranty.
- Do not use a razor blade or anything sharp on the rear side window or the tailgate window. Make sure not to scratch the inside of the rear side window or the tailgate window and not to damage the lines as you can damage the antenna and interfere with the radio's ability to pick up stations clearly. The repairs will not be covered by your warranty.

NOTES ON COMPACT DISCS

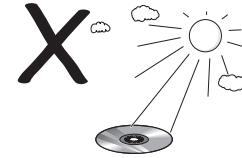
Care of your CD

- Handle the CD by its edge and avoid touching the playing surface.

  Directly after removal from the CD/MP3 slot, place the CD into the CD cover to prevent damage or soiling.
- Do not stick paper or tape or write on either surface.



- Do not expose the CD to direct sunlight or a heat source for example, a hot air duct.



- Dirt and liquids on CDs may soil the audio systems CD player lens resulting in malfunction.
- Before inserting a CD into the audio system, clean the CD with a cleaning cloth. Wipe the CD from the centre outwards, rather than in a circular motion. See illustrations.
- Do not use solvents such as petrol, thinners etc. Use commercially available CD cleaners.

GLOSSARY OF TERMS

Automatic station search
Station search by tuner. The tuner will search until a station is found.

Auto store (AST)
The best receivable stations in the FM and AM wave bands can automatically be stored. The stations are stored in a separate AST memory**.**

If you leave the reception area of the stored stations, new stations can be stored.

Balance
Shifting of volume to left or right loud speaker.

Bass
Low frequency sound.

CD text
Information stored on a audio CD title which include the following data:

- Track name.
- Artist's name.
- CD title.

Fader
Front/rear volume distribution.

MP3
CD audio data compression method developed by Fraunhofer Institute. Compression allows reduction of the amount of data to around 10% of the original volume without audible losses in sound quality (at a bit rate of 128 kbit/s). If lower bit rates are used to convert the CD audio data into MP3 then the files become even smaller but sound quality is reduced.

WMA
Windows Media Audio, a data compression method used to store audio data.

Random play
The tracks on a CD are played back in random order.

Treble
High frequency sound.

NOTES

CHAPTER 2

Locks

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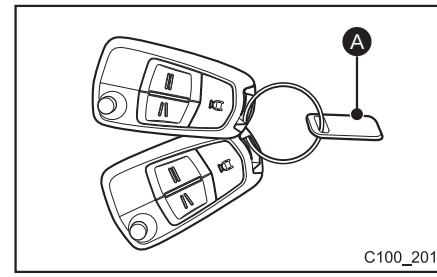
Bonnet lock....2-10
Security....2-11

*The asterisk signifies equipment options not in all vehicles, model variants, engine options, optional equipment and Genuine Holden Accessories (and Parts).

KEYS

KEY



This key operates all locks and the ignition. The following buttons appear on the key.

= Lock

= Unlock

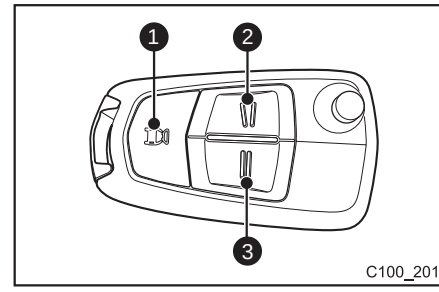
= Unlock tailgate window

The code number for your keys is stamped on the key plate Ⓐ, which is attached to the key ring. Record the key number, remove the key plate and keep the number and the key plate in a safe place (not in the vehicle).

To protect your car from theft, an electronic immobilisation system has been installed in your vehicle. Only keys with the correct electronic code can be used to start the vehicle.

Note Even if a key has the same profile, it will not start the engine if the electronic code is incorrect.

In the event of the original keys being lost, any additional or replacement keys must be purchased from and programmed by your Holden Dealer, using your key code number.



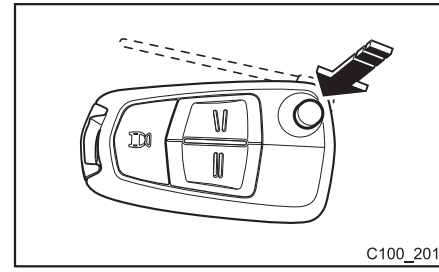
Unlock tailgate window: Press the button ❶ on the key for more than 1 second. Refer to *Tailgate lock* further on in this chapter.

Unlock: Press the button ❷ on the key to unlock the doors. The hazard lamps will flash twice.

Lock: Press the button ❸ on the key to lock the doors. The hazard lamps will flash once.

Refer to *Door locks* further on in this chapter.

Foldaway key blade



Press the button to extend the key blade.

To retract the key blade, press the button and fold the key section into the remote.

Note The key engages audibly.

KEYS cont.

Pressing buttons

Note When pressing the key buttons, ensure that other keys on the key ring are not between the key and the vehicle. Other keys can obscure the signal being transmitted to the vehicle. Refer to *Notes about the keys* further on in this chapter.

Matching transmitter(s) to your vehicle

Each remote keyless entry transmitter is coded to prevent another transmitter from unlocking your vehicle.

If a transmitter is lost, stolen or extras are required, a replacement can be purchased through your Holden Dealer. Remember to bring any additional transmitters so they can also be re-coded to match the new transmitter.

Once your Holden Dealer has coded the new transmitter, the lost transmitter will not unlock your vehicle.

Up to 4 keys can be matched to your vehicle at the same time.

WARNING

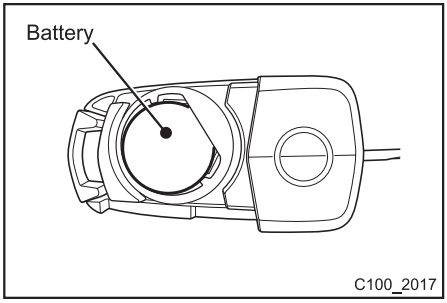
The remote control unit contains precision electronic parts. To help avoid transmitter trouble:

- Do not leave the remote control unit in direct sunlight.
- Do not treat the remote control unit carelessly.
- Do not allow the remote control unit to get wet or ingress moisture.

Replacing the battery in the remote control

Replace the battery as soon as the range of the remote control becomes reduced.

1. Remove the back cover by hand.
2. Remove the battery and replace it with the new one, making sure the positive (+) side of the battery is facing up. Refer to *Specifications* in chapter 8 for the correct battery to be used.
3. Reassemble the transmitter ensuring the cover is engaged correctly.
4. Test the operation of the transmitter with your vehicle.



Note

- Avoid touching the flat surfaces of the battery with your bare fingers. Handling will shorten battery life.
- Avoid touching the circuit board and other components inside the remote control.

KEYS cont.

NOTES ABOUT THE KEYS

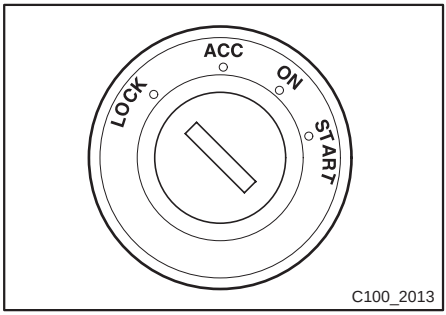
- When a button on the key is pressed, it sends a signal to the vehicle.
- The remote control in the key has a range of approximately 6 metres. The range is dependent on the charge state of the transmitter battery and on ambient conditions of the vehicle's location, the key's location and the area between them. If the key buttons do not work, change your position to the vehicle and try again. Normally, getting closer to the vehicle will solve the problem. Certain conditions also enable ranges of more than 6 metres. Take care that no button is pressed unintentionally, especially when the vehicle is out of sight.
- Tinting the vehicle windows reduces the range of the key if the tinting material has a metallic film.
- The key buttons may not work if the vehicle is parked near strong radio activity, such as under TV towers (most likely in high lookout car parks).
- At times you may notice a decrease in range. This is normal for any remote keyless entry system. If the transmitter does not work or if you have to stand closer to your vehicle, try this:
  - Check the distance. You may be too far from your vehicle. You may need to stand closer during rainy or snowy weather.
  - Check the location. Other vehicles or objects may be blocking the signal. Take a few steps to the left or right, hold the transmitter higher, and try again.
  - If you are still having trouble, contact your Holden Dealer.
- When, for any reason, pressing the key buttons does not work, the doors can be locked (anticlockwise) and unlocked (clockwise) by turning the key in the driver's door lock.
- If the vehicle is delivered with only one key, notify your Holden Dealer immediately.
- Always store spare keys in a safe, dry place.
- Treat the remote control unit with care. It should be protected against moisture and should not be operated unnecessarily.
- The buttons on the remote control do not operate while the key is in the ignition.

IGNITION SWITCH

IGNITION POSITIONS

WARNING

- Do not switch the engine off while the vehicle is moving as there will not be any power assist for brakes or steering.
- Never remove the key while the vehicle is moving, as this will lock the steering.



LOCK

When the key is in the LOCK position, some electrical accessories and the engine are off.

The key is inserted and removed only from the LOCK position.

To help guard against theft, the vehicle's engine is automatically disabled shortly after turning the key to the LOCK position and removing the key from the ignition switch.

In addition, the steering wheel is automatically locked when the key is removed. To release the steering lock and enable the engine, re-insert the key and turn it towards the front of the vehicle.

If having trouble turning the key to unlock the steering, turn the steering wheel slightly to the right or left while turning the key towards the front of the vehicle.

ACC

When the key is in the ACC (accessories) position, the engine will not run. However accessories such as the audio system will still operate.

ON

When the key is in the ON position, the engine is ready to start (or is already started) and all electrical systems are active.

Note

- Diesel engine: The Glow plug indicator lamp will illuminate until the engine is sufficiently warmed for cold starting. Once the lamp extinguishes, the key can be turned to the **START** position and the engine started. Refer to *Engine starting* in chapter 4.
- The warning lamps, which are designed to illuminate at the ignition ON position, indicate the systems are working. Refer to *Warning/reminder indications* in chapter 1A.
- Do not leave the switch in the ON position for a prolonged period, unless the engine is running, otherwise the vehicle's battery will discharge.

START

This is the position for starting the engine.

Petrol engine: Turn the key to the **START** position momentarily and then release it, as the engine starts automatically.

Diesel engine: Turn the key to the **START** position until the engine starts.

The key automatically returns to the **ON** position when released.

DOOR LOCKS

LOCKING

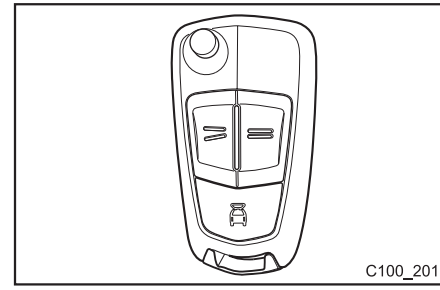
Doors are locked when the lock snib is flush with the door handle. If the snib is showing red, the door is unlocked. Refer to *Door lock snibs* further on in this chapter.

Remote locking

When the vehicle is unlocked, close all doors and then press the ⚌ button on the key to lock all doors.

The vehicle hazard lamps will flash once and the doors lock.

Note The fuel filler door will lock when the doors are locked.


C100_2018

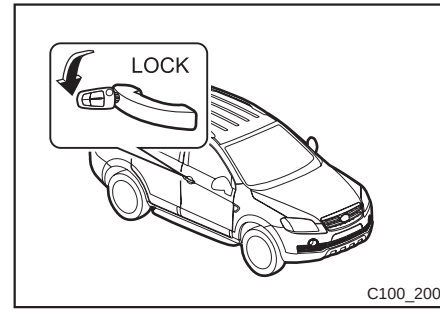
Deadlocking

Press the ⚌ button a second time within 3 seconds of locking. The vehicle hazard lamps will flash once and the doors deadlock.

Note Deadlocking will lock all doors and prevent them from being unlocked from inside the vehicle.

Manual locking

Insert the key in the driver's door lock and turn anticlockwise, then turn it back to the vertical position and remove to lock all doors.

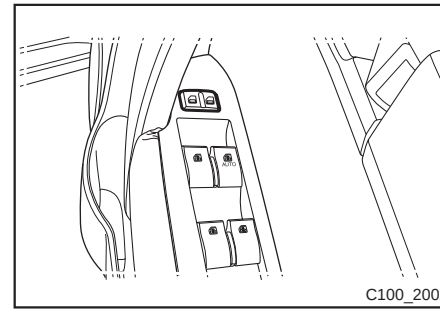


C100_2004

Locking from the inside

The doors can be locked with the door lock switch, located on the driver's door armrest.

Press the left side of the switch to lock the doors.


C100_2002

DOOR LOCKS cont.

UNLOCKING

Doors are unlocked when the lock snib is showing red. If the snib is flush with the door handle, the door is locked. Refer to *Door lock snibs* further on in this chapter.

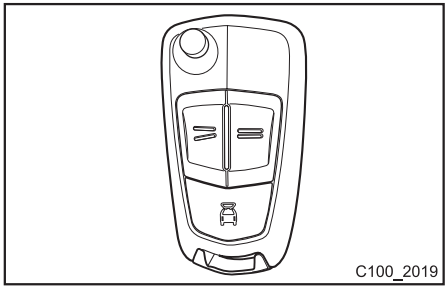
Remote unlocking

When the vehicle is locked, press the button on the key. The vehicle hazard lamps flash twice and the drivers door unlocks.

To unlock the remaining doors press the button a second time within 3 seconds.

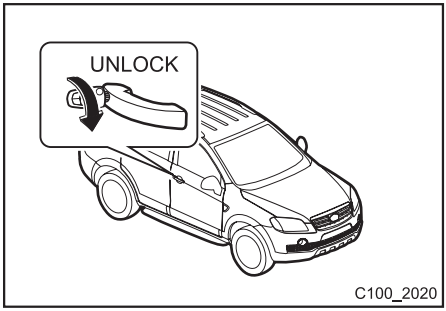
Note

- If you do not open a door or start the engine within 30 seconds, all doors will automatically re-lock.
- The fuel filler door unlocks when the doors are unlocked.


C100_2019

Manual unlocking

Insert the key into the driver's door lock and turn clockwise, then turn it back to the vertical position and remove to unlock all doors.

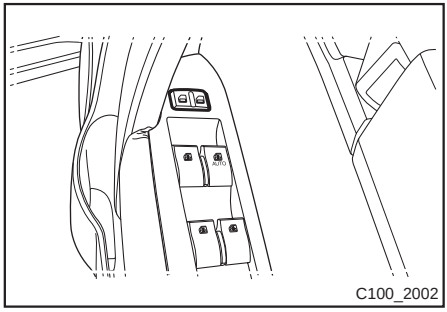


C100_2020

Unlocking from the inside

The doors can be unlocked with the door lock switch, located on the driver's door armrest.

Press the right side of the switch to unlock the doors.

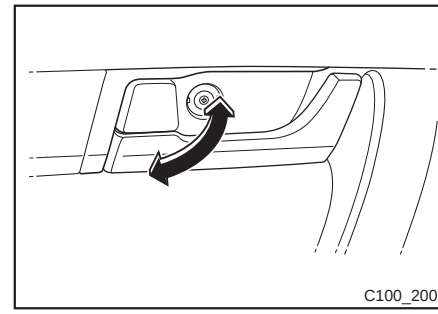

C100_2002

DOOR LOCKS cont.

DOOR LOCK SNIBS

To lock any door from the inside, pull the door lock button. To unlock, push the door lock button.

The driver's door lock button cannot be pulled when the door is open, this is to prevent the ignition key from being locked inside the vehicle by mistake.


C100_2001

WARNING

Before driving, ensure the doors are closed and locked, especially when young children are in the vehicle.

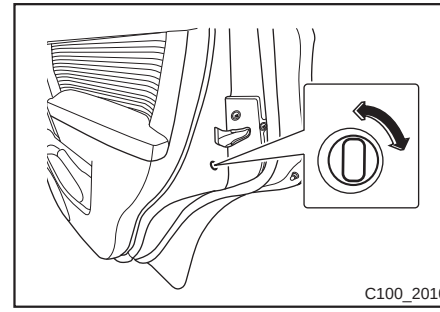
Child safety rear door locks

Child safety locks helps prevent the rear doors being accidentally opened from the inside by small children in the vehicle.

The locks are provided on the rear edge of both rear doors. They are accessible when the door is open.

To activate the child safety locks:

1. Open the rear door you intend to lock.
2. Locate the child safety lock on the door edge.
3. Use the ignition key to turn the lock clockwise away from the vertical position.


C100_2010

Note To open a rear door when the child safety door lock is activated, unlock the door and open from the outside.

WARNING

For safety, always check that the lock is operating correctly (after setting) by trying to open the door from inside the vehicle.

To deactivate the child safety door locks:

1. Turn the lock anticlockwise to the vertical position to disengage the child safety lock.

TAILGATE

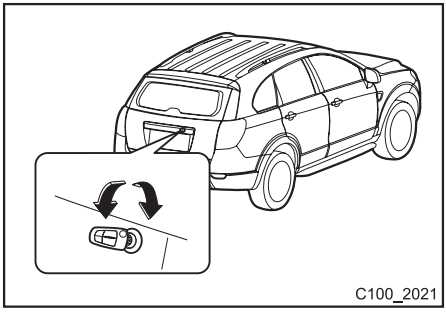
Tailgate lock

WARNING

- It can be very dangerous to drive with the tailgate and/or tailgate window open. Carbon monoxide (CO) gas can enter into the vehicle. You can not see or smell CO. It can cause unconsciousness and even death.
- If you must drive with the tailgate and/or tailgate window open, make sure all other windows are closed and switch the fan on to the highest speed using any setting that brings in outside air. Doing this will force outside air into the vehicle.

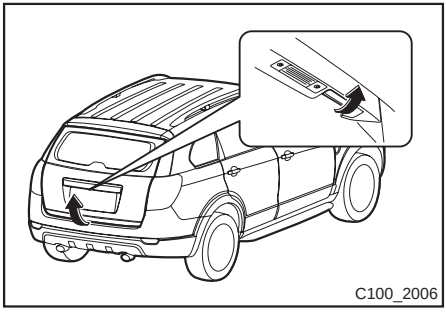
To lock:

Close the tailgate, push it down until it latches securely. From the outside, the tailgate can be locked with either the remote control unit or with the key.


C100_2021

To unlock:

From the outside, use your key to unlock the tailgate by turning the key anticlockwise, or use your remote control unit to unlock the tailgate. Lift up the handle above the license plate and lift the tailgate upward. The tailgate warning lamp illuminates when the tailgate is open or unlatched.

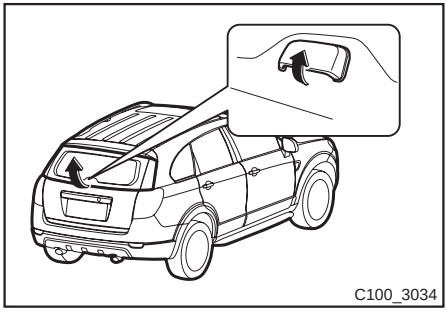

C100_2006

Note For further information on the tailgate window, refer to *Power windows* in chapter 3.

Tailgate window lock

To unlock, press the button on the key for more than two seconds.

To open, grasp the handle and lift the window up. The tailgate warning lamp illuminates when the tailgate window is open or unlatched.


C100_3034

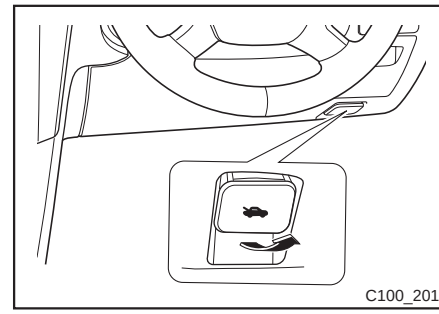
Note The tailgate window may also be unlocked by the switch on the driver's armrest. Refer to *Power windows* in chapter 3.

BONNET LOCK

OPENING THE BONNET

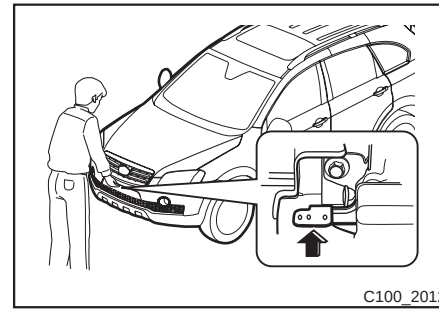
The release handle is located at the lower right side of the dashboard.

To release the bonnet pull the lever toward you. The bonnet is prevented from opening fully by a safety catch.


C100_2011

To open the bonnet completely, reach under the bonnet to the driver's side of the emblem and push up on the front edge of the release catch. Hold in this position and raise the bonnet.

After you have partially lifted the bonnet, gas struts automatically take over to lift and hold the bonnet in the fully open position.


C100_2012

CLOSING THE BONNET

WARNING

To avoid injury and/or damage to the vehicle, check each time, before the bonnet is closed, that the contact area is unobstructed.

Lower the bonnet until the gas struts stop providing lifting effort and then allow it to drop. Make sure the latch engages.

WARNING

If while driving you notice that the bonnet has not been properly closed, pull the vehicle over to the side of the road at the earliest possible moment and close the bonnet correctly.

SECURITY

Immobiliser

This vehicle is fitted with an immobiliser. It prevents unauthorised engine starting.

The ignition key will be recognised by the vehicle when the key is inserted into the ignition switch allowing the engine to be started.

Note

- Avoid large bundles of keys being attached to the ignition key.
- Avoid having keys from other vehicles attached to the ignition key.
- Replacement keys can only be programmed by your Holden Dealer.
- If the vehicle's key is lost, inform your Holden Dealer immediately so the car can be reprogrammed to no longer recognise the lost key as valid.
- A maximum of 4 keys can be programmed to suit one vehicle.
- Do not attempt to start the vehicle with a non-approved key.
- If the immobiliser system has developed a fault or an incorrectly programmed key is used in an attempt to start the vehicle, the security warning indicator lamp will illuminate.

NOTES

CHAPTER 3

Know your vehicle

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*The asterisk signifies equipment options not in all vehicles, model variants, engine options, optional equipment and Genuine Holden Accessories (and Parts).

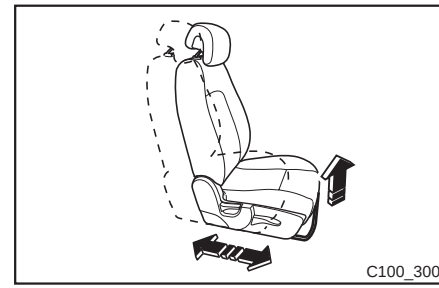
SEATS

MANUAL FRONT SEATS

Seat slide adjustment

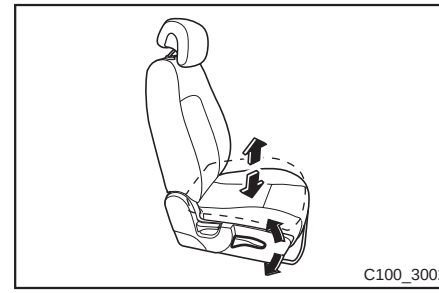
Lift the lever to unlatch the front seat. Slide the seat as required. Release the lever.

Note Try to move the seat back and forth to check that the latch is fully engaged.



Driver's seat height adjustment

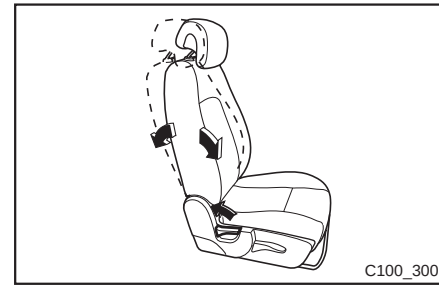
To raise the driver's seat cushion, move the lever upward repeatedly until the seat is at the desired height. To lower the seat cushion, move the lever downward repeatedly until the seat is at the desired height.



Seat reclining adjustment

To tilt the seat forward or backward, lift the lever on the outside of the seat cushion until the seatback is adjusted to the desired position.

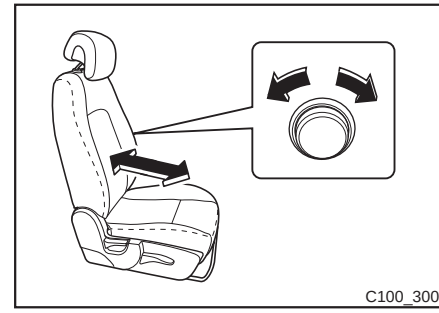
WARNING
To avoid reducing the effectiveness of seatbelts, seat backs should only be upright or at most semi-reclined when the vehicle is moving.



Driver's seat lumbar adjustment

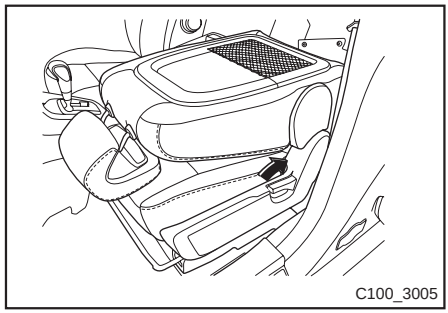
To increase or decrease the driver's seat lumbar support, turn the knob on the inside of the seatback clockwise or anticlockwise until the lumbar is adjusted to the desired position.

WARNING
Do not adjust the driver's seat when the vehicle is moving, as the seat could move suddenly, causing the driver to lose control.



SEATS cont.

Folding front passenger's seat back


C100_3005

To fold the front passenger seatback, use the following procedure:

1. Lower the head restraint all the way. Refer to *Head restraint* further on in this chapter.
2. Pull up and hold the lever under the front of the seat to slide the seat as far back as it will go and release the lever.
3. Lift the reclining lever, located on the door side of the seat, up fully and fold the seatback forward until it stops in the folded position.

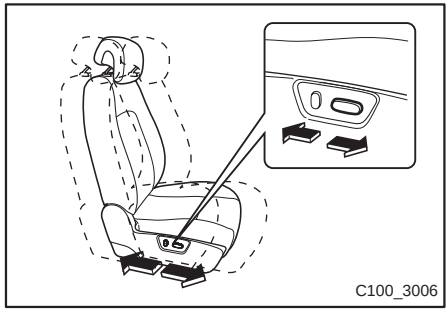
To raise the passenger's seatback, use the following procedure:

1. Lift the seatback and push it to it's original position.
2. Latch the seatback into place by pushing on top of the seatback.
3. Pull the seatback forward to ensure it is properly latched.

*DRIVER'S POWER SEAT**

Seat slide adjustment

To move the seat forward or backward, move and hold the switch in the forward or rear position. When the seat reaches the desired position, release the switch.

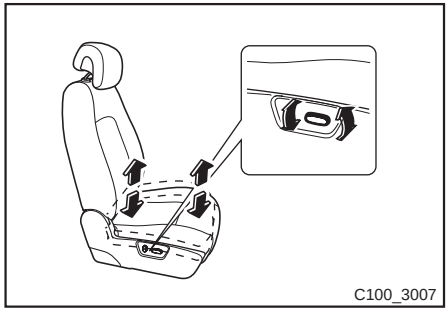

C100_3006

Seat height adjustment

To adjust the height of the front part of the seat cushion, push the front of the switch up or down.

To adjust the height of the rear part of the seat cushion, push the rear of the switch up or down.

To adjust the height of the entire seat cushion, push both the front and rear of the switch up or down.

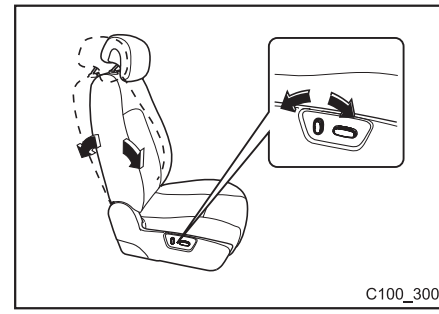

C100_3007

SEATS cont.

Seat reclining adjustment

To tilt the seatback forward or backward, move and hold the upper part of the switch forward or backward. When the seatback reaches the desired position, release the switch.

WARNING
To avoid reducing the effectiveness of seatbelts, seat backs should only be upright or at most semi-reclined when the vehicle is moving.


C100_3008

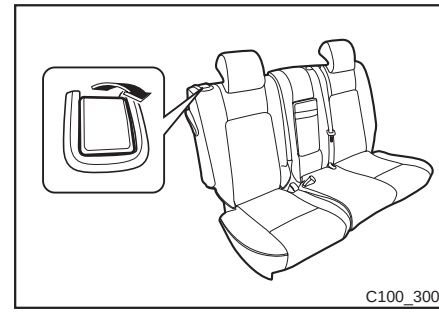
REAR SEATS

WARNING
- Do not press the release button on the top of the seatback while the vehicle is moving. This could cause damage or injuries to the occupants.
- Do not allow passengers to sit on the folded seatbacks while the vehicle is in motion. Unrestrained luggage or passengers on a folded seatback could be thrown within or ejected from the vehicle in a sudden stop or accident.
- Do not allow passengers to sit in the third row seats with the rear seats in the folded position.

Seat reclining

The rear seats can be partially reclined.

To tilt the seatbacks, lift the lever on top of the rear seatback and adjust the seatback until it is in the desired position, then release the lever.


C100_3009

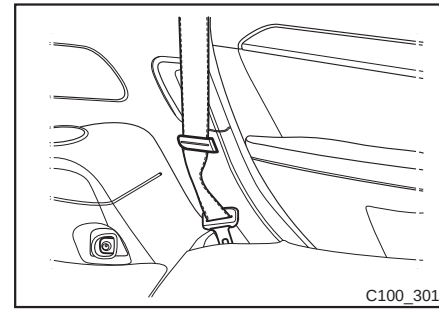
Seatback folding

The seatbacks can be folded down individually for additional cargo space.

1. Ensure all three seat belts are unbuckled and the front seatbacks are not reclined.
2. Push the head restraints fully down.
3. Lift the lever on top of the rear seatback and fold the seatback forward.

To return seatbacks to their original position

1. Hook the seat belts to the retaining guide ensuring they are not pinched.
2. Lift the rear seat back up to it's original position.
3. Unhook the seat belts from the retaining guides.
4. Ensure the seat back is securely latched by pulling it back and forth.


C100_3011

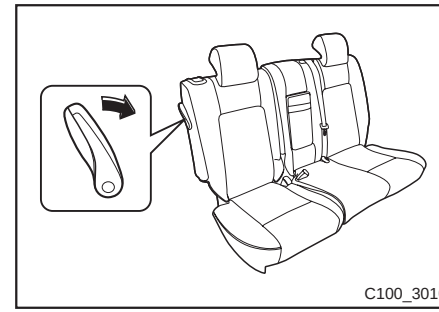
SEATS cont.

THIRD ROW SEATS – 7 SEAT MODELS

Double folding rear seat

For third row seat entry or exit, use the following procedure:

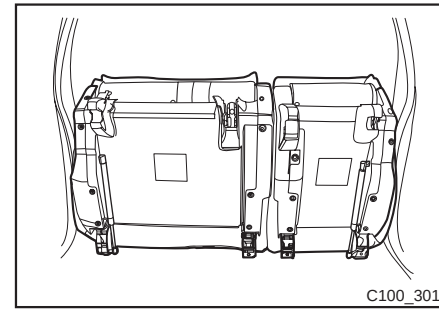
1. Ensure all three seat belts are unbuckled and the front seatbacks are not reclined.
2. Push the head restraints fully down.
3. Pull the lever forward on the outside of the seatback and fold the seatback.
4. The seats will tumble forward automatically and gas struts will hold the seats in the folded position.


C100_3010

Note Do not operate the lever when the seats are in the folded position.

To return the rear seats to their original position, use the following procedure:

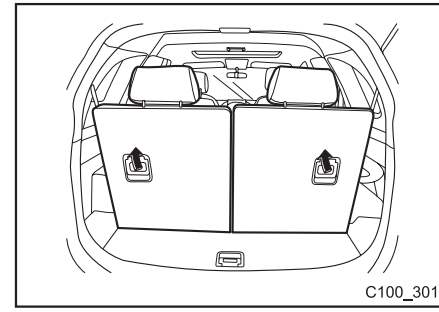
1. Hook the seat belts to the retaining guide ensuring they are not pinched.
2. Guide the rear seat cushion down.
3. Lock the rear seat cushion on the floor ensuring it is securely latched by pulling it up and down.
4. Return the rear seat back to its original position ensuring it is securely latched by pulling it back and forth.
5. Unhook the seat belts from the retaining guide.


C100_3014

Third row seat folding

To fold down the third row seatbacks, use the following procedure:

1. Ensure the seat belts are unbuckled.
2. Lift the lever on the back of each seatback. Make sure the head restraint folds down
3. Push the seatback forward until it stops in the folded position.


C100_3016

To return the rear seats to their original position.

1. Raise the seatback to it's original position. Make sure that the seatback is securely latched by pulling it back and forth.
2. Push the head restraint rearward to it's original position.

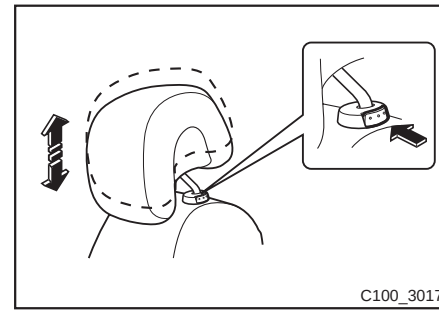
SEATS cont.

HEAD RESTRAINT

Adjusting the height

To adjust the height of the head restraint, pull up or push down while pressing the locking button in.

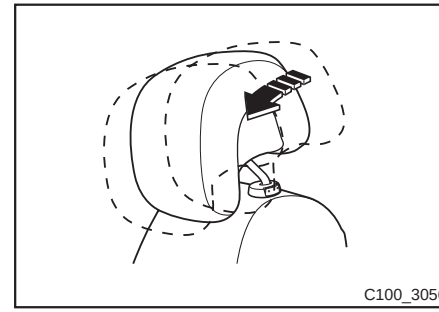
Note The centre of the head restraint should be at eye level, never at neck level.


C100_3017

Adjusting the tilt

To tilt the front head restraints,

1. Place it in its upright position by pushing it forward fully and releasing it.
2. Push the head restraint forward carefully until it is adjusted to the desired position.


C100_3056

WARNING

- Do not drive the vehicle with the head restraints removed, since it would increase the risk of a neck injury in the event of an accident.
- Do not attempt to adjust the driver's head restraint while the vehicle is in motion. This could cause a loss of control of the vehicle.
- The head restraint safety feature is not intended as a headrest. It is solely for the reduction of whiplash neck movement in an accident involving the vehicle.
- The centre of the head restraint should be at eye level, never at neck level.

RESTRAINTS

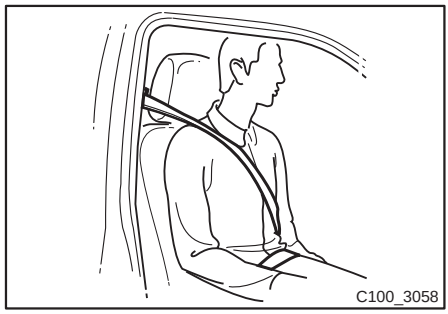
SEAT BELTS

Front seat belts

To fasten the seat belt:

- Pull the metal tongue across your body and clip it into the buckle.
- When the metal tongue is locked safely into place you will hear a 'click'.
- Give a gentle pull on the buckle to ensure full engagement.
- After fastening, settle the belt at the hip, and run your hand under the sash from hip to shoulder to ensure that the belt fits comfortably and is free from twists. Any extra belt length retracts automatically.
- Ensure the lap section of the belt is also free from twists and fits firmly across your hips.

C100_3057


C100_3058

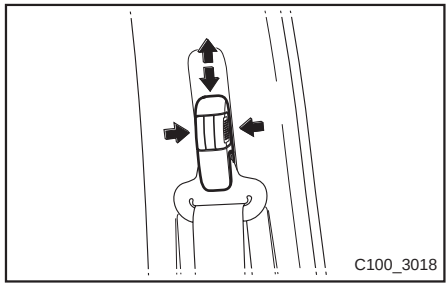
Note For your safety, wear the lap section of the seat belt as low as possible on your hips, not on your waist or abdomen.

The 'emergency-locking retractor belt' allows you to move while the vehicle is travelling normally, but locks immediately on fast braking, impact with a solid object or any quick movement by the wearer.

To undo the belt, press the release button on the buckle and allow the belt to retract. Check that it fully retracts without twisting or turning.

Front seat belt height adjustment

WARNING
Do not attempt to adjust the seat belt height while driving, because it could cause loss of control of the vehicle.


C100_3018

The seat belt is anchored to the vehicle near your shoulder, the position of the front seat belt anchor can be adjusted to accommodate the height of the wearer.

- Squeeze the release buttons to move the adjuster up or down to the desired height.
- Lock the safety belt anchor in position.
- To make sure it is locked in place, try to move the height adjuster without pressing the release button.

Adjust the height so the seat belt passes over the wearer's shoulder and rests against the shoulder. It must not pass over the neck or upper arm. Shorter people should select a low seat belt guide position and taller people a higher one.

RESTRAINTS cont.

Rear seat belts

To put on the seat belt, pull the shoulder portion of the seat belt down until the metal tongue reaches the buckle. Press the metal tongue into the buckle until it clicks into position.

To release the seat belt, press the release button on the buckle.

WARNING
The tongue must engage and lock inside the buckle for the seat belt to function properly.

Seat belt pretensioners

The front seat belt system incorporates seat belt pretensioners. Seat belt pretensioners are part of the Supplemental Restraint System (SRS) and operate in conjunction with airbags. In the event of a severe frontal collision the belt buckles and retractors are pulled downward, tightening both the diagonal and lap sections of the seat belt.

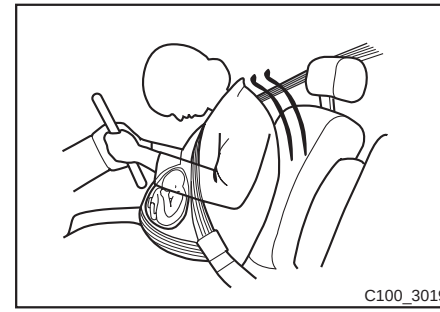
If the belt pretensioners have been activated, the warning lamp on the instrument panel will not go out after the usual few seconds. This is designed to remind you the pretensioner system has been used and therefore needs to be replaced by your Holden Dealer. The seat belts would remain operational, apart from this safety feature.

If the SRS lamp illuminates at any other time, or if the warning lamp illuminates on the instrument panel, see your Holden Dealer immediately to have the system checked. Refer to *Warning/reminder indications* in chapter 1A, for further information about warning lamps and reminder indicators.

The driver and all passengers should be properly restrained at all times with the seat belts provided in the vehicle. Failure to do so could increase the risk of injury and/or the severity of injury in accidents.

Seat belt use during pregnancy

Seat belts work for everyone, including pregnant women. Like all occupants, they are more likely to be seriously injured if they do not wear seat belts. A pregnant woman should wear a lap/shoulder belt, and the lap portion should be worn as low as possible throughout the pregnancy.


C100_3019

RESTRAINTS cont.

Maintenance of seat belts

Check the seat belts regularly. Replace the seat belts if they become frayed or damaged. The buckle and retractors mechanism operation should also be checked. Your Holden Dealer will regularly do these things as part of the scheduled maintenance plan. Refer to the Service/warranty booklet.

The seat belts must be replaced if they have been in use during a severe impact, even if there is no obvious damage.

Clean the seat belts only with a solution of mild soap and luke warm water. Never use bleach.

Child restraints

If you are travelling with children in the vehicle, child restraints are required. Refer to *Which type of child restraint for your child?* further on in this chapter.

WARNING

- Seat belts are designed to bear upon the bony structure of the body, and should be worn low across the front of the pelvis or the pelvis, chest and shoulders, as applicable; wearing the lap section of the belt across the abdominal area must be avoided.
- Seat belts should be adjusted as firmly as possible, consistent with comfort, to provide the protection for which they have been designed. A slack belt will greatly reduce the protection afforded to the wearer.
- Care should be taken to avoid contamination of the webbing with polishes, oils and chemicals, and particularly battery acid. Cleaning may safely be carried out using mild soap and water. The belt should be replaced if webbing becomes frayed, contaminated or damaged.
- It is essential to replace the entire assembly after it has been worn in a severe impact even if damage to the assembly is not obvious.
- Belts should not be worn with straps twisted.
- Each belt assembly must only be used by one occupant; it is dangerous to put a belt around a child being carried on the occupant's lap.
- No modifications or additions should be made by the user which will either prevent the seat belt adjusting devices from operating to remove slack, or prevent the seat belt assembly from being adjusted to remove slack.

RESTRAINTS cont.

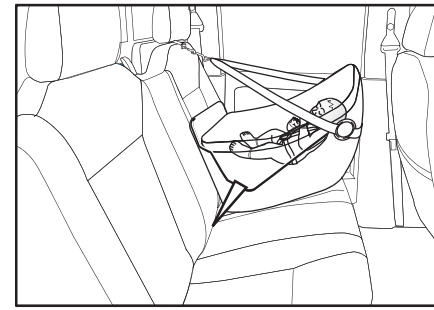
WHICH TYPE OF CHILD RESTRAINT FOR YOUR CHILD?

Children should be restrained at all times and fitted with a child restraint appropriate to their size when travelling in a vehicle. The following outlines guidelines about selecting the appropriate restraint.

Infants

Rearward facing infant capsule	
Weight	Height
Up to 9 kg*	Up to 70 cm*

Designed so that in the event of a collision, impact forces will be evenly spread over the baby's back, with minimal jarring to the vulnerable head and neck area.

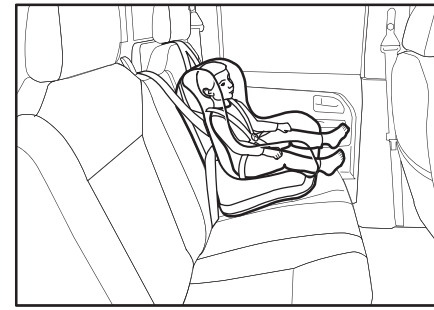


Rearward facing infant capsule

Young children

Forward facing child seat
Weight
8 to 18 kg*

For use when the child is able to sit and easily hold his or her head upright. It is also possible to purchase convertible seats which can be used as a rearward facing infant restraint or converted to a forward facing child seat.



Forward facing child seat

Booster seat with lap/sash seat belt
Weight
14 to 26 kg*

When children outgrow a typical forward-facing child seat but they are still too small for lap/sash seat belts. A booster seat raises the child so the knees bend comfortably, the lap/sash seat belt is correctly positioned and the child can see out the window. A rigid booster seat with a back, side wings and sash guide gives the best protection.

Booster seat with lap/sash seat belt

Older children

A child should use a normal lap/sash seat belt only when:

- he/she can sit against the back of the rear seat with knees bent comfortably at the edge of the seat,
- lap belt rests low and snug across the hips – not across the stomach,
- sash belt is centred on shoulder and chest,
- he/she is able to stay seated like this for the entire trip.

Adult lap/sash seat belt

**According to AS/NZ 1754:2004*

RESTRAINTS cont.

WARNING – EXTREME HAZARD

- Do not use a rearward facing child restraint on a seat protected by an airbag in front of it.

  The child could be seriously injured if the airbag inflates, as the child's head would be very close to the inflating airbag.
- Never install a child restraint in the front seat of a vehicle fitted with Side Impact Airbags (SIAB). Remember that it is safer for children to be seated in the rear seats.
- If a child can not see out of the window, do not raise the child by means of an ordinary cushion. The cushion would not stay in place in the event of a crash, and the child would slip out of the straps and become entangled. Ensure the seat belt fits firmly around the child restraint.
- Children should be restrained at all times when travelling in a vehicle.

WARNING AVERTISSEMENT ADVERTENCIA
AIR BAG
DO NOT place rear-facing child seat on this seat with airbag
DEATH OR SERIOUS INJURY can occur.
Ne pas placer de siège enfant "dos à la route"sur le siège passager avant équipé d'un airbag.
Risque sérieux de MORT OU DE BLESSURES GRAVES.
NO DEBE colocar de espaldas asientos para bebes en esta silla equipada con bolsa de aire
MUERTE O TRAUMA SERIO pueden ocurrir.
C100_3021

WARNING

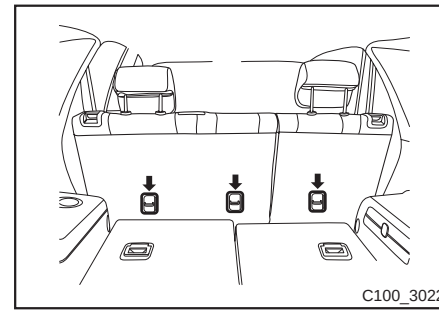
- Child restraint anchorages are designed to withstand only those loads imposed by correctly fitted child restraints. Under no circumstances are they to be used for adult seat belts, harnesses or for attaching other items or equipment to the vehicle.
- Only child restraints that have clips to attach to the vehicle's anchorage fitting (as shown in the following illustrations) are to be used. Earlier types of child restraints may not attach securely to this type of anchor.
- Only Standards Australia approved child restraints and harnesses should be used. You should only purchase a child restraint which carries the appropriate Standards Australia sticker of approval.
- Where legally allowable, you may install a forward-facing child restraint in the front passenger's seat (without side impact airbags), but always move this seat as far back as it will go.
- Remember, it is safer for children to be seated in the rear seats.

RESTRAINTS cont.

Anchor points

The tether anchor brackets are installed on the rear of the back seats as shown.

Note The anchor brackets are installed in three positions.



Attaching the child restraint

WARNING
Always follow the child restraint manufacturers fitting instructions when installing a child restraint.

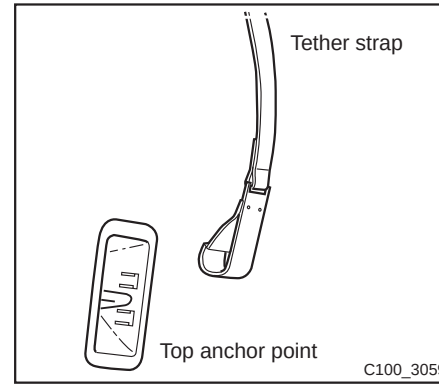
Place the child restraint on the rear seat and attach it to the anchors following the instructions supplied with the child restraint.

Attach the clip on the child restraint tether strap to the tether anchor, ensuring there are no twists in the tether strap.

Note

- If the position you are using has an adjustable head restraint and you are using a dual tether, route the tether around either side of the head restraint.
- If you are using a single tether, raise the head restraint and route the tether under the head restraint between the two mounting posts.

Tighten the tether straps according to the instructions supplied with the child restraint.

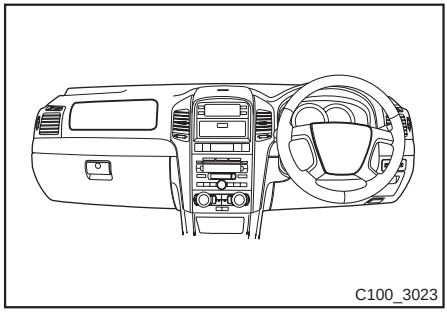


SUPPLEMENTAL RESTRAINT SYSTEM

AIRBAGS

Front airbags

The driver's airbag is stored inside the steering wheel. **AIRBAG** is stamped on the steering wheel and a label is attached under the passenger's side sun visor.


C100_3023

WARNING
- The horn pad must not be covered with adhesive or any other material.
- The driver should adjust the seat as far rearward as possible while still maintaining control of the vehicle.

The front passenger's airbag is stored in the dash panel. The wording **AIRBAG** above the glovebox and a label attached under the sun visor indicates that a passenger airbag is fitted.

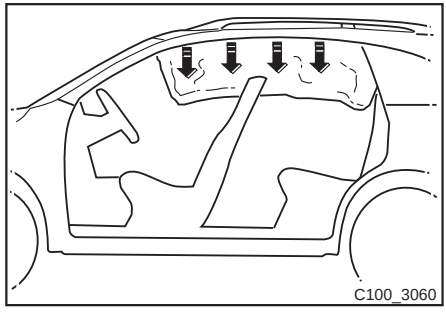
WARNING
- Do not place any objects on or over the dashboard or between an airbag and yourself.
- Do not hang anything from the sun visor or mirror.
- Passengers must not rest their feet on the dashboard.

Front airbags will inflate in certain severe frontal or near frontal impacts. Front airbags are not designed to inflate if the vehicle is struck from the side, rear or in rollovers. Always wear a seat belt.

Side curtain airbag operation

Note Curtain airbags do not protect the third row seat passengers.

Curtain airbags are stored in the roof area, just above the front and rear doors. The curtain airbag only deploys on the side of the vehicle that is struck.


C100_3060

SUPPLEMENTAL RESTRAINT SYSTEM cont.

Note

- A curtain airbag will deploy and offer protection in most, but not all, severe side impacts. Because of the limited time available to detect some side impacts, it is not possible to deploy a curtain airbag in all serious accidents (for example, some pole impacts).
- A curtain airbag will inflate in certain severe side impacts. Curtain airbags are not designed to inflate if the vehicle is struck from the front, rear or in rollovers. Always wear a seat belt.
- If the vehicle is fitted with curtain airbags there will be labels on both door lock pillars.

WARNING

- Do not position your body or any object (including pillows) in the area in which the airbag inflates.
- There must be no objects in the area in which the airbag inflates.
- Use the hooks above the doors only to hang up light articles of clothing.
- Do not place any objects in the pockets of the hanging items.
- Do not hold onto the assist grips (above the doors) while seated in the vehicle.
- Always wear your seat belt.
- Do not lean on, or sleep against the front or rear doors. Always sit centrally in the seat.
- Airbags are part of the 'Supplemental Restraint System' (SRS) as they assist, but do not replace seat belts. Airbags do not deploy in every accident. Various factors dictate whether they deploy including speed, angle of collision and object hit. Airbags are not designed to inflate in all collisions. Seat belts must be worn by all passengers whenever the vehicle is moving.
- Airbags inflate with great force, if you are too close to an inflating airbag it may cause injury. Seat belts help keep you in position for airbag inflation in the event of a collision.

The system should also be inspected by a Holden Dealer if:

- The steering wheel or dashboard area is scratched, cracked or damaged;
- If curtain airbags are fitted, and the head lining side panels are damaged.

Note Extensive design and testing has gone into the airbag system. It should however, be treated with respect. Any careless or unskilled interference with the system could lead to its failure or to accidental deployment. It is recommended that any work to the electrical system, steering column, dashboard area, steering wheel or airbag system be carried out by a Holden Dealer.

Roo/nudge bar

If a roo/nudge bar is to be fitted, it is critical the Holden approved roo/nudge bar be used.

Refer to *Add on equipment* in chapter 4, for further information.

SUPPLEMENTAL RESTRAINT SYSTEM cont.

Passenger airbag and child restraints

WARNING – EXTREME HAZARD

- Do NOT use a rearward facing child restraint on a seat protected by an airbag in front of it.

  The child could be seriously injured if the airbag inflates, as the child's head would be very close to the inflating airbag.
- Remember that it is safer for children to be seated in the rear seats.

WARNING AVERTISSEMENT ADVERTENCIA
AIR BAG
DO NOT place rear-facing child seat on this seat with airbag
DEATH OR SERIOUS INJURY can occur.
Ne pas placer de siège enfant "dos à la route"sur le siège passager avant équipé d'un airbag.
Risque sérieux de MORT OU DE BLESSURES GRAVES.
NO DEBE colocar de espaldas asientos para bebes en esta silla equipada con bolsa de aire
MUERTE O TRAUMA SERIO pueden ocurrir.
C100_3021

Refer to *Child restraints*, previously in this chapter for further information about fitting a child restraint.

Do not touch any airbag system components or wires.

The wires can be identified by yellow tape wrapping or yellow tubing and the connectors are also yellow.

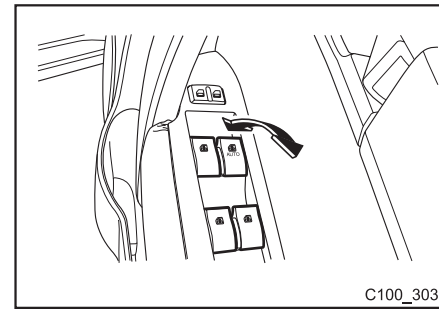
Scrapping a vehicle that has an uninflated airbag can be hazardous. Ask your Holden Dealer for assistance.

POWER WINDOWS

The main switches for the power windows are located on the driver's door panel. The front switches are for the front windows and the rear switches are for the rear windows.

Individual switches are located on the front passenger door and on the rear doors.

The switches for the power windows are operational when the ignition switch is in the **ON** or **ACC** position.


C100_3031

Driver's window auto function

The driver's window has an auto down two stage function.

To lower the window, press down firmly, then release the switch. The window will automatically fully open. To stop the window while it is opening, lift the switch up.

To raise the window, pull up and hold the switch. To stop the window, release the switch.

Passenger windows

To open a passenger's window, push down on the switch and hold it down until the window reaches the desired position then release.

To close a window, pull back on the switch until the window reaches the desired position then release.

Note The rear windows do not open fully.

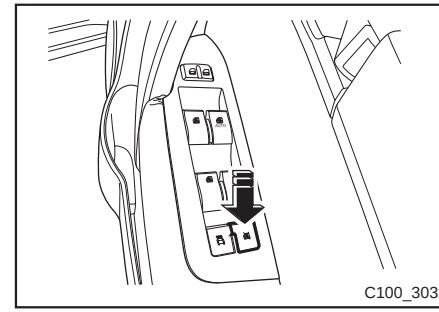
Lock switch

The lock switch for the power windows is located on the driver's door armrest.

When the lock switch is in the on position the passengers are not able to operate their windows from the window switch fitted to their door.

Pressing it again unlocks the passenger's power windows and allows operation from the individual window switches.

Note After the ignition key has been turned to the **LOCK** position or removed from the ignition switch, the windows can be operated for up to 10 minutes or until the driver's door is opened.


C100_3032

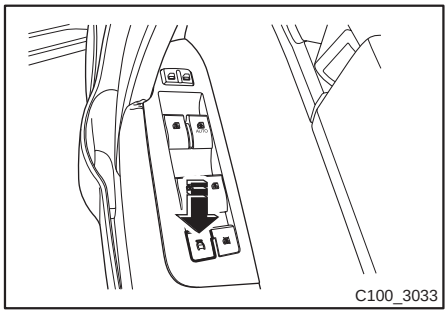
POWER WINDOWS cont.

Tailgate window unlock button

Unlock the tailgate window by pressing the button located on the driver's door armrest.

The tailgate window can also be unlocked by pressing the button on the remote control. Refer to *Keys* in chapter 2.

The tailgate warning lamp illuminates when the tailgate window is open or unlatched.


C100_3033

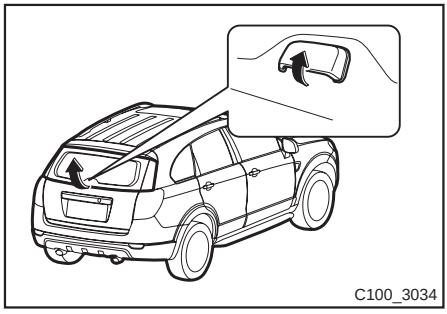
WARNING
Do not operate the tailgate window unlock button while the vehicle is moving.

Opening the tailgate window

After unlocking the tailgate window, hold the handle on the tailgate window and lift upward to open.

To close the tailgate window, push it downward until it latches securely.

Note The tailgate window will lock automatically.


C100_3034

WARNING
- To assure the safety of children and others, ensure that all passengers have their hands, etc. clear of the windows.
- Remove the key when leaving the vehicle, to avoid unintentional window operation by children.
- Ensure the lock switch has been set to the activated position when children are in the vehicle.

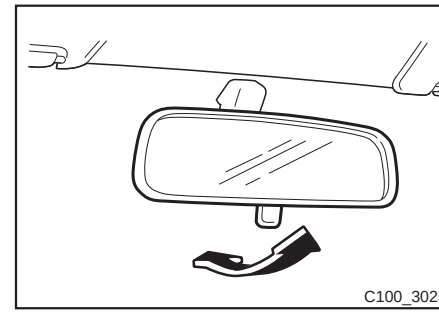
MIRRORS

Interior rear view mirror

To adjust the rear view mirror, move the mirror right or left, up or down to gain the required angle.

The anti-glare lever on the lower edge of the mirror enables the reflector to be used during night driving. This reduces the glare at night, from the following vehicle's headlamps.

During normal daylight operation, the lever should be set forward. To reduce glare at night, move the lever toward you.


C100_3025

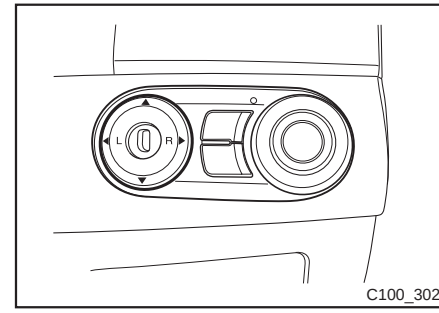
Exterior electric rear view mirrors

The adjustment switches for the electric mirrors are located on the driver's side of the dashboard below the side vent outlet and is operational when the ignition switch is turned to the **ON** position or **ACC**.

Push the selector switch to the left to move the left mirror, or to the right to move the right mirror. Pushing the selector switch to the middle will disengage movement.

Push the arrow pointing in the direction you want to move the mirror up, down, left or right. It is not advisable to adjust the mirrors while driving.

Note Moving the glass of the mirrors forcibly by hand can damage the electric mirror drive system.



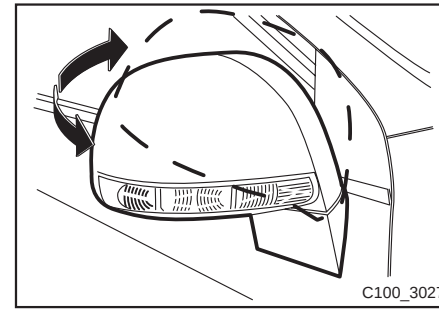
C100_3026

Folding the exterior mirrors

When the vehicle is parked the exterior mirrors may be folded flat against the sides of the vehicle by pushing the mirrors backward.

Note The exterior mirror turn indicator* bulbs are not serviceable, if they fail to illuminate see your Holden Dealer.

WARNING
The exterior mirrors are convex shaped, to provide a wider view. Objects seen in these mirrors are closer than they appear.

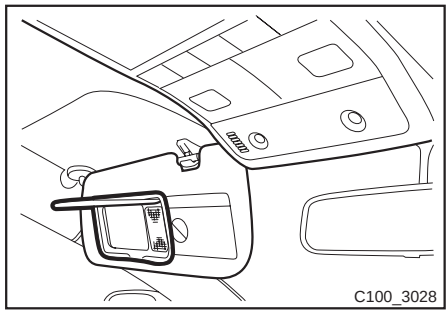

C100_3027

MIRRORS cont.

Vanity mirror

The vanity mirrors are located on the rear side of the sun visors, and include a ticket holder.

To view the mirror, pull the cover up from the lower edge. When opening the cover of the vanity mirrors the vanity lamp will illuminate.



INTERIOR LAMPS

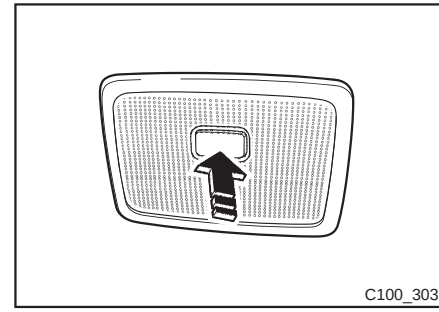
Interior lamp

When an interior lamp button is pressed, the lamp illuminates and stays on until the button is pressed again.

The centre and rear interior lamps illuminate when a door or the tailgate is opened.

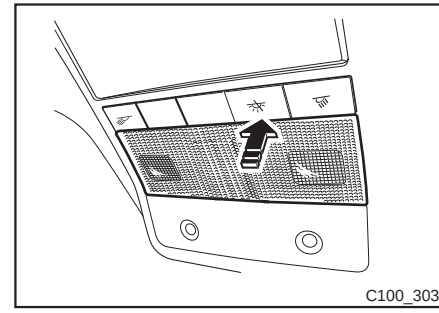
If a door or the tailgate stays open, the interior lamps extinguish after approximately 10 minutes.

When all doors and the tailgate are closed, the interior lamps gradually dim and switch off after approximately 10 seconds.


C100_3035

Interior lamps off

The interior lamps can also be switched off by pressing the button located on the switch panel between the sun visors.

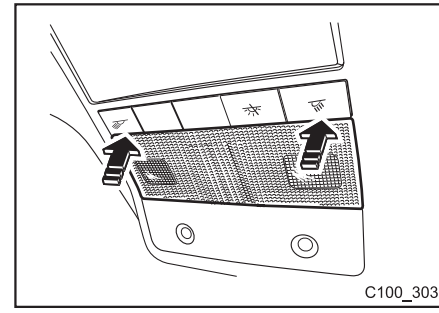

C100_3036

Map lamps

The map lamps are located on the switch panel between the sun visors.

Press one of the two buttons (as shown) to illuminate the corresponding front map lamp.

Press the button again to switch off the map lamp.

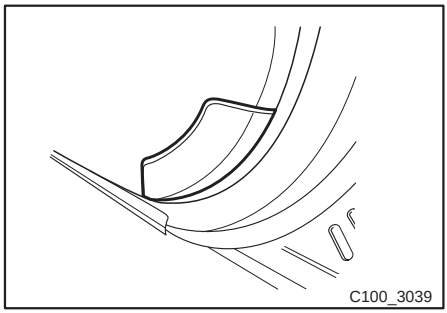

C100_3037

INTERIOR LAMPS cont.

Front door step lamp

The front door step lamp illuminates when the front door is opened, the lamp will stay illuminated if the door is left open.

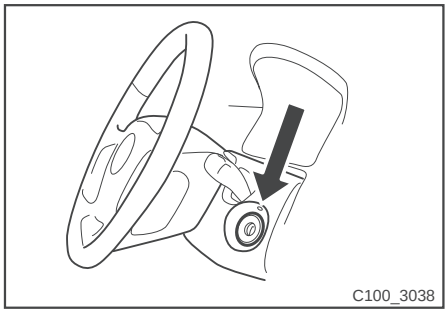
When the front door is closed the lamp stays illuminated for approximately 10 seconds, then switches off.



Ignition switch lamp

The ignition switch lamp illuminates when a door is opened. The lamp will stay illuminated if the door is left open.

When the door is closed the lamp stays illuminated for approximately 7 seconds, then switches off.

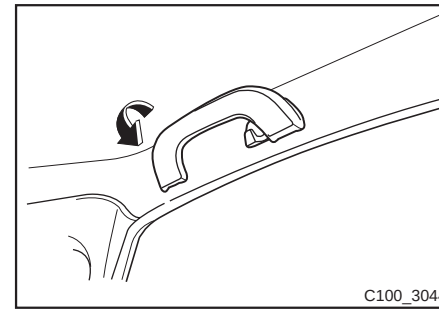


ASSIST GRIPS AND SUN VISORS

Assist grips

Assist grips are located above the passenger doors to help occupants when getting in and out of the vehicle.

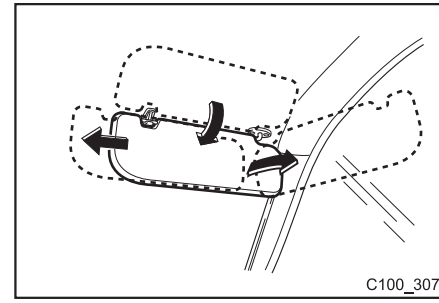
The assist grips above each rear door include a coat hook.



Sun visors

The sun visors may be adjusted to three positions as follows:

1. Fold the sun visors down to reduce sun glare through the windscreen.
2. Unclip the inner hinge and slide toward the middle of the vehicle.
3. Unclip the inner hinge and fold outwards to reduce sun glare through the side window.

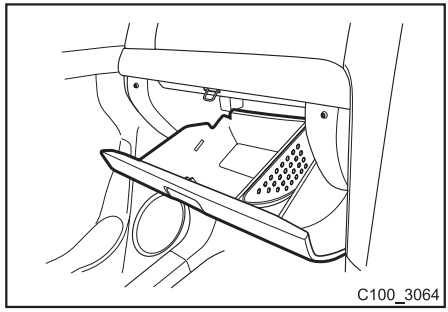


STORAGE COMPARTMENTS

Glovebox

The glovebox is located on the passenger side of the instrument panel.

The glovebox can be opened by pulling the handle. Push the lid shut to close the glovebox.



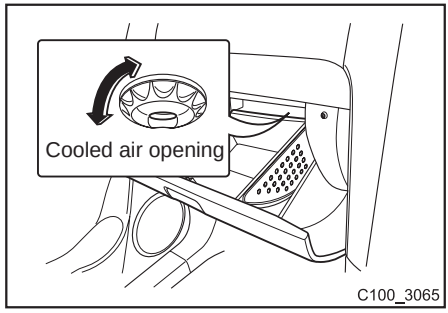
Glovebox cooling*

The glovebox is air conditioned to keep snacks fresh while you are travelling. Use the adjustment wheel inside the glovebox to open or close the cooled air hole.

Cool air is sent into the glovebox through a vent when the air conditioning is switched on.

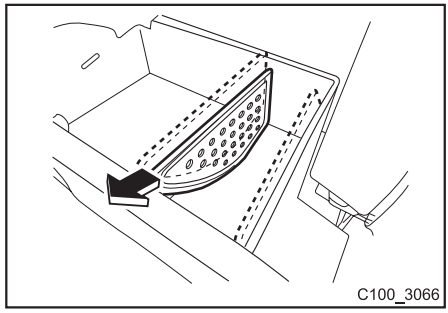
If glovebox cooling is not required, close the vent by turning the adjustment wheel clockwise.

Note In cold weather, cold air will flow through the glovebox vent when the recirculation feature is switched off, allowing outside air to flow in. If glovebox cooling is not required, close the vent.



Inner partition

To store larger items, remove the inner partition and store it in the right side groove of the glovebox.

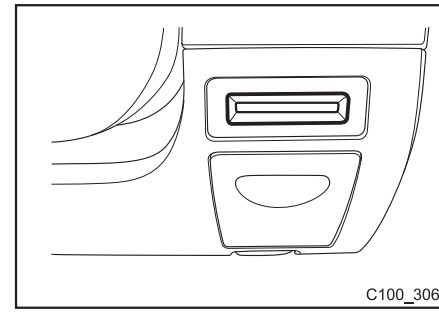


STORAGE COMPARTMENTS cont.

Card holder

The card holder is located on the right hand side of the instrument panel.

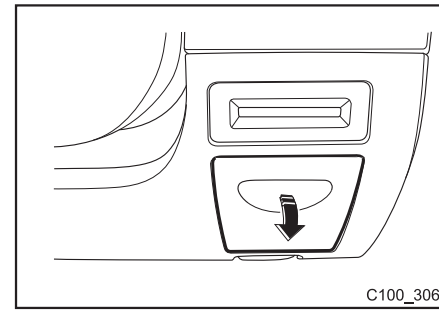
The card holder can be used by inserting a card into the slot.



Coin storage

The coin storage is located on the right hand side of the instrument panel.

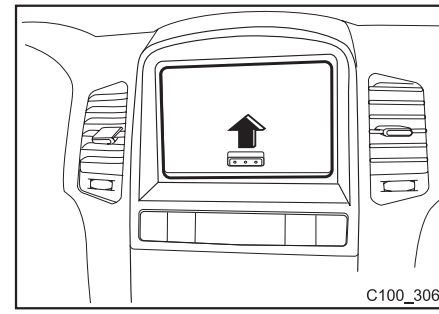
To open the coin storage compartment, pull the handle on the compartment door toward you.



Centre storage*

The centre storage compartment is used for storing small items.

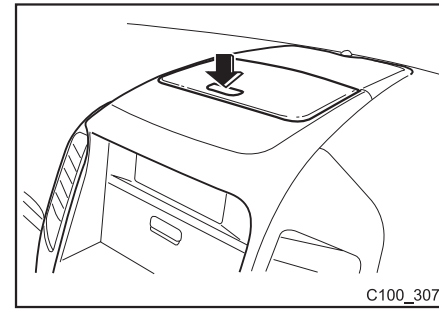
To open the storage compartment, push the button upward.



Upper storage*

The upper storage compartment is used for storing small items.

To open the storage compartment, push the button on top of the lid.

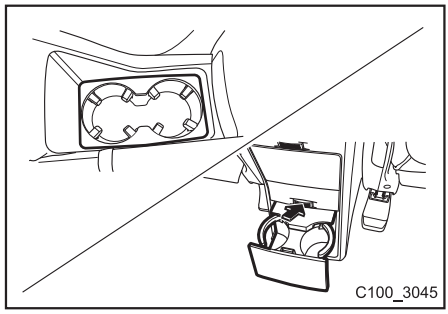


STORAGE COMPARTMENTS cont.

Cup holders

Cup holders are located in the front, beside the park brake lever, in the rear of the centre console and on the left hand side of the rear luggage area.

To access the rear cup holder, push the button above the cup holder, it will pop out automatically.



Front centre console bin

The centre console is located between the two front seats.

Console tray and sliding armrest*

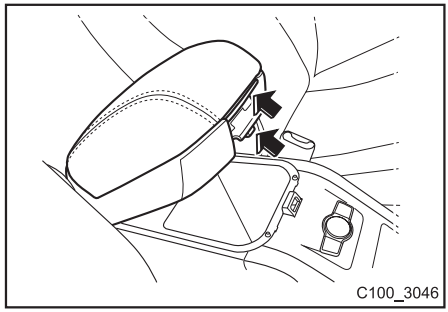
The console tray is located above the centre console bin, under the sliding armrest.

To open the centre console lid, pull up on the lower lever and lift the lid upward.

To close the centre console lid, lower the lid and push it down until it latches.

To open the console tray, lift up on the upper lever and raise the lid upward.

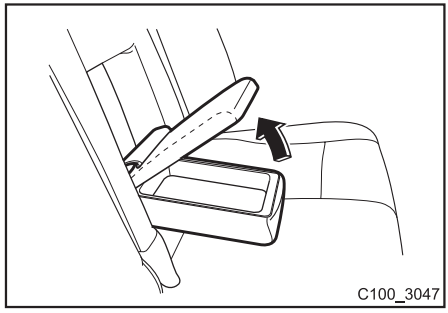
To slide the armrest forward, lift up on the upper lever and slide the armrest forward to the desired position.



Rear centre console*

The rear centre console is located between the rear seats in the armrest.

To open the rear console lid on the centre armrest, pull the lid upward.



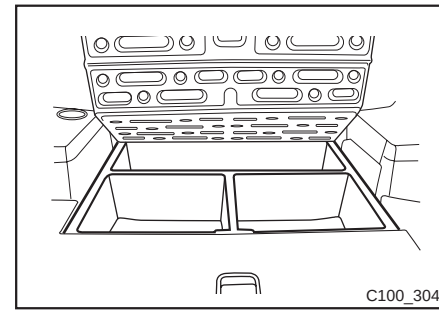
STORAGE COMPARTMENTS cont.

Under floor storage*

There are storage compartments located under the floor of the rear luggage area in 5 seat vehicles only.

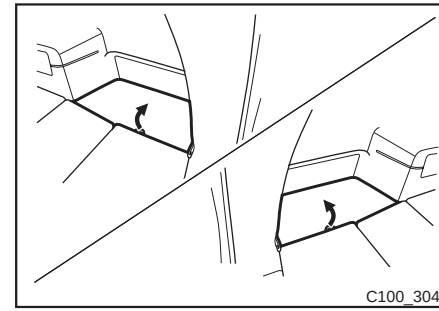
To gain access to the under floor storage, pull the floor mat handle upward.

Note Do not allow items in the storage compartment to extend above the top of the storage container, otherwise the storage compartment or the luggage area floor mat may be damaged.


C100_3048

Floor side trays

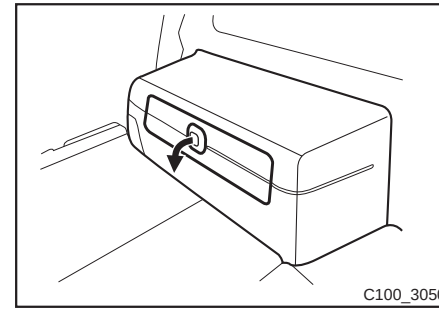
Floor side trays are located on both sides of the rear luggage area.


C100_3049

Floor storage box*

The floor storage box is located on the right hand side of the rear luggage area, to open this box push down on the button.

Note Ensure the storage box lid is closed before folding the right hand side rear seat down.


C100_3050

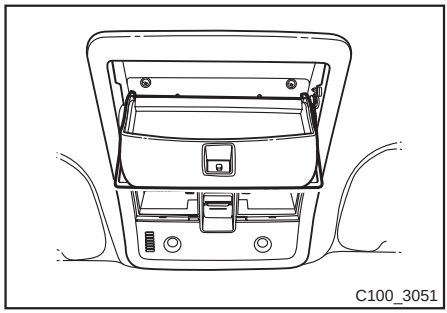
STORAGE COMPARTMENTS cont.

Sunglasses holder

The sunglasses holder is located in the roof and is designed to accommodate one pair of sunglasses.

To open, push in the rear of the lid and release it.

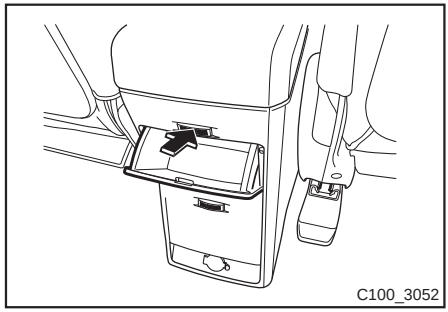
To close, swivel the holder back to its original position and press in the rear of the lid to engage the latch.


C100_3051

Rear storage compartment

The rear storage compartment is located at the rear of the centre console, to open it, press the button above the compartment.

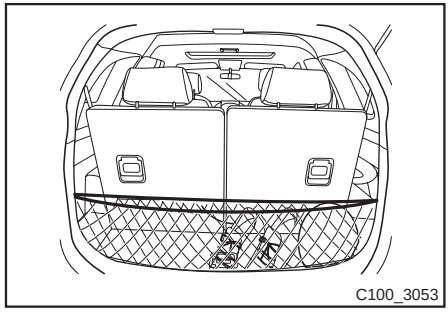
To close, push upward until it latches.


C100_3052

Cargo net*

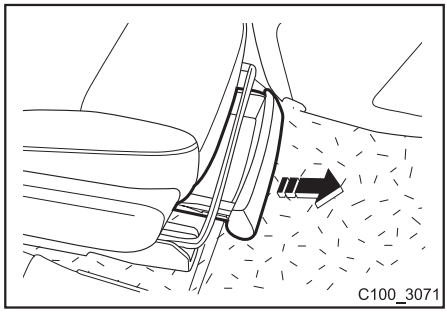
Small loads can be carried with the cargo net.

To install the net, hang each loop in the upper corner of the net to both anchors of the back panel and the two net hooks in the metal rings at both lower corners of the floor.


C100_3053

Front passenger seat storage tray*

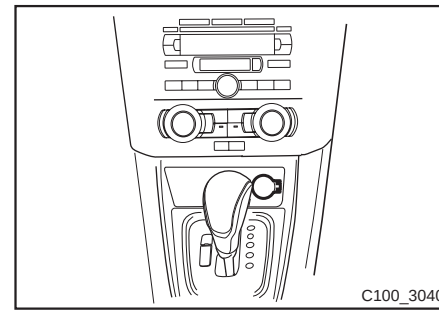
To open the front passenger seat storage tray, pull upward on the end of the tray and slide it forward. Push the tray back under the seat to secure it in the original position.


C100_3071

POWER SOCKET

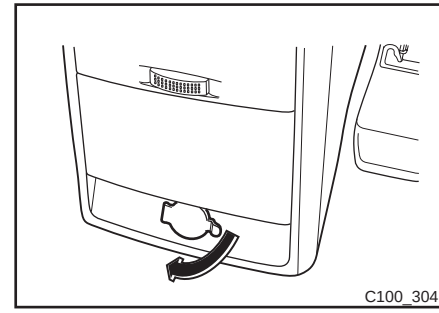
Dashboard

An accessory power socket is located in the dashboard in front of the gear shift lever.



Centre console

An accessory power socket is located on the rear of the centre console below the rear cup holders.



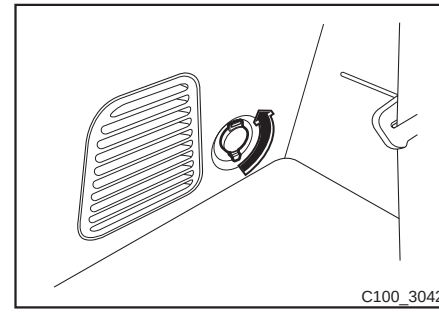
Rear luggage area

An accessory power socket is located on the left hand side of the rear luggage area.

Equipment connection

To plug in auxiliary electrical equipment, flip the socket cover open and follow the installation instructions that are included with any electrical equipment to be installed.

These circuits are protected by a fuse and have a maximum current load. When not in use, always cover the socket with the protective cap.



Note The ignition switch must be in the **ON** or **ACC** position for the sockets to operate.

WARNING
When using all accessory power sockets, the total maximum electrical load must not exceed 10 amps at 12 volts. Always switch off any electrical equipment when not in use. Leaving electrical equipment on for extended periods with the engine stopped will drain the battery.

CHAPTER 4

Driving

Page

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*The asterisk signifies equipment options not in all vehicles, model variants, engine options, optional equipment and Genuine Holden Accessories (and Parts).

SAFETY

Before entering the vehicle

1. Check that windows, mirrors and lamps are clean.
2. Visually check tyre inflation.

   Note It is recommended to check the tyre pressures with a pressure gauge each week. Refer to *Tyres* in chapter 7.

Before driving away

1. Ensure that all doors are closed and secured.
2. Position your seat for comfortable driving.
3. Adjust rear vision mirrors.
4. FASTEN SEAT BELTS.
5. Check if the warning indicators light up when you turn the key to start the engine. Refer to *Warning/reminder indications* in chapter 1A.

   Automatic transmission*: Have the ignition on and press the brake pedal before moving the transmission selector away from the **P** (park) position.

Parking

1. Apply the park brake.
2. Manual transmission*:* Place in reverse or first gear.

   Automatic transmission*:* Place in **P** (park) position.
3. Close all windows.
4. Switch off all exterior lamps.
5. Turn the ignition key to the **LOCK** position and remove the key.
6. Lock all doors.

WARNING

- To avoid the possibility of injury, always fully apply the park brake before exiting the vehicle.
- Be careful where you park or drive. As with any vehicle, do not park or operate this vehicle in areas where combustible materials such as dry grass or leaves can come in contact with the hot exhaust system.
- Never leave the engine running in an area such as a closed garage or underground car park.

SAFETY cont.

Off road driving (All Wheel Drive AWD vehicles)

The AWD Captiva has not been designed as a full off road vehicle. The requirement to maintain a very high degree of comfort, ride, handling and stability dictates the ground clearance and may not be sufficient to allow the vehicle to be driven over very severe four wheel drive tracks.

To achieve a high degree of unsealed road capability, the vehicle is equipped with all wheel drive, increased ground clearance and a traction control system.

Off road driving (Front Wheel Drive FWD vehicles)

The FWD Captiva is designed primarily for on road use. The FWD Captiva may be used on well maintained unsealed (gravel) roads in the same way as a conventional passenger vehicle.

Level ride suspension*

The level ride suspension system automatically adjusts the suspension level while the vehicle is moving, this is achieved by the shock absorbers slowly adjusting to the load weight to help maintain a constant ride level. When a load is placed in the rear of the vehicle, the suspension is slowly lifted upward to its previous unloaded level. This improves the ride and handling when the rear of the vehicle is loaded.

Road conditions (All Wheel Drive AWD vehicles)

The AWD Captiva is capable of being driven over poorer roads, although extra care must be taken when driving in conditions that may not be familiar. Some roads are often not well maintained and may have washaways, loose or slippery patches, rocks, fallen tree branches, deep pot holes or ditches that can catch out the unwary driver. These roads must be driven at slow speed and with great caution.

It is highly advisable to travel with another vehicle when travelling on remote or poor quality roads.

DRIVING PRECAUTIONS

Turbocharger* (diesel only) operating precaution, engine starting

Do not operate the engine above idle before the normal engine oil pressure has been established (such as applying full throttle immediately upon initial start-up). This causes the turbocharger to operate at excessive speed before the bearings receive adequate lubrication. Operation of the turbocharger for a period as short as five seconds without sufficient oil can cause bearing failure.

Running-in

These days, there is no need to follow the formal running-in schedule. However, by observing a few simple precautions during the first few hundred kilometres of driving you will greatly assist your vehicle's future performance and economy.

For the first 500 km, do not exceed 90 km/h. Up to 1,500 km, avoid driving at any one speed, either slow or fast, for any length of time.

Include some higher speeds during this period. Always drive at moderate speed until the engine has completely warmed up.

For the first 500 km heavy braking should be avoided, except in an emergency, since brake misuse during this period could impair future braking efficiency.

It is best to drive your new vehicle for 1,500 km before towing a load. If you must tow before this do not exceed 80 km/h on good roads. For AWD vehicles no heavy off road towing should be attempted before 1,500 km.

Off-road

Following a period of off-road driving, particularly in wet weather, the front of the vehicle should be hosed down to clear any accumulation of mud. In particular, pay specific attention to both sides of the radiator.

Engine misfire

If the engine is misfiring, reduce the vehicle speed and do not attempt to tow a caravan or trailer, until the misfiring is corrected by the nearest Holden Dealer. Continued driving while the engine is misfiring could result in the catalytic converter and exhaust system overheating, resulting in vehicle damage.

Loose articles

Do not leave loose articles or luggage in the passenger compartment or the rear luggage area, always secure all items.

WARNING
Gas cylinders can leak, creating a risk of fire or explosion. As a precaution, ensure adequate ventilation when carrying gas cylinders. They must be restrained from rolling around, and where possible, placed in the load area of the vehicle. It is recommended that if gas cylinders are frequently transported, a purpose built carrying compartment be used. Transportation of gas cylinders is regulated by legislation in some States.

Loading the vehicle

Loading the vehicle changes the mass distribution and therefore the handling of the vehicle when driving. After loading the vehicle, extra care should be taken to become familiar with the feel of the vehicle while driving. Refer to *Loading the vehicle* in chapter 9.
Refer to *Tyres* in chapter 7, for information on tyre pressure when the vehicle is loaded.

DRIVING PRECAUTIONS cont.

Brakes

Power assisted brakes, which are fitted to your vehicle, utilise vacuum from the engine when it is running. Never let the vehicle run down steep inclines without the engine running. Never coast with the engine switched off.

A decrease in driving, cornering and braking traction occurs when water, snow, ice, gravel or other materials are on the road surface. Driving practices and vehicle speed should be adjusted to suit the road conditions.

Driving through water may affect performance. Applying the brakes lightly will indicate whether they have been affected. To dry them quickly, lightly apply the brakes while maintaining a slow forward speed with an assured clear distance ahead until brake performance returns to normal.

Brake pedal travel should not be obstructed by ill-fitting floor mats or any other material under the pedal which causes interference with normal pedal movement.

The driver's seat should be positioned so that you can push the brake pedal satisfactorily under all braking conditions.

Power steering

The steering system fitted to your vehicle is power assisted. It has been designed to reduce steering effort. Care should be taken to avoid holding a prolonged turning force on the steering wheel when the steering is at left or right lock when stationary (e.g. during parking manoeuvres), as this creates high operating temperatures and pressures within the system.

If the power assistance for the steering is not working because a fault has developed, the vehicle can still be steered. However, due to the significant level of extra effort required to steer, it is recommended that you fix the problem promptly.

Tyre grip

A decrease in tyre grip occurs when water, snow, ice, gravel or other materials are on the road. Driving speed should be adjusted to the road conditions.

When driving on wet or slushy roads, it is possible for a wedge of water to build up between the tyre and road surface. This phenomenon, known as hydroplaning, may cause partial or complete loss of grip, which affects steering and braking. To reduce the possibility of hydroplaning:

- Reduce speeds during rainstorms.
- Replace tyres when tread wear indicators are visible.
- Regularly check if the tyres are properly inflated.

Mud and snow tyres

WARNING

- The use of tyres that are a different size or construction i.e. mud or snow tyres, may adversely affect the ESP® system.
- When fitted with winter tread tyres, the vehicle should not be driven at speeds in excess of the tyre category symbol as moulded on the tyre, or in the absence thereof, at high speeds.

4X4 DRIVING PRECAUTIONS

Difficult conditions

If there is any doubt about the road being passable, it is better to stop the vehicle well before the hazard and check on foot before driving the vehicle through it.

If the ground is very uneven or rocky, do not grip the steering wheel with your thumbs around the rim of the wheel. A sudden steering kickback due to an unseen obstacle could cause injury to the thumb.

Ensure all luggage, and equipment is securely tied down when driving over rough or uneven surfaces.

Snow chains

WARNING
You must not use standard snow chains if your vehicle is fitted with 17 or 18 inch wheels. The fitting of standard snow chains to larger size wheels may cause damage to your vehicle. Please check with your Holden Dealer for available alternatives.

Provided the correct snow chains are fitted ensure the following are observed:

- Snow chains may only be used at speeds up to 50 km/h.
- When driving on roads that are free of snow, snow chains should only be used for brief periods, as they will wear quickly and may snap.
- The part of the snow chain that covers the tyre tread should not be thicker than 13 mm. The part of the snow chain that wraps around the side of the tyre should not be thicker than 15 mm including the chain clasp (16 inch wheels only). The use of thicker chains may cause damage to the body of the vehicle.

Mobile phones and CB radios

Mobile phones and CB radio equipment, which use an integrated antenna, may temporarily affect the vehicle's electronics (permanent damage is unlikely) when used inside the vehicle, due to the interference created when transmitting.

Therefore, mobile phones and CB radio equipment that use an antenna fitted to the outside of the vehicle, should be used whenever possible.

If phones or CB radios with an integrated antenna must be used inside the vehicle, care should be taken not to operate near the dashboard area.

Water crossing

Before crossing water it is recommended to switch off the air conditioning.

If it is necessary to drive through deep water, check the depth with a stick or by wading into the water before driving through. Do not attempt to drive through water more than 300 mm deep (approximately 12 inches). Always drive through deep water very slowly, as too high a speed would make a bow wave that may cause water to enter the engine through the inlet system and cause major damage. Never drive into fast running water. The force of the water can easily move the vehicle sideways, possibly into deeper water.

Always check the brakes for effectiveness immediately after driving through deep water. Drive slowly and check the pedal force. If the brakes are wet, several firm brake applications will dry them out quite quickly.

If the vehicle is stationary in deep water for an extended period, it should be checked by an authorised Holden Dealer as soon as practicable for water entry to engine, transmission, differentials and wheel bearings.

PARK BRAKE

Park brake operation

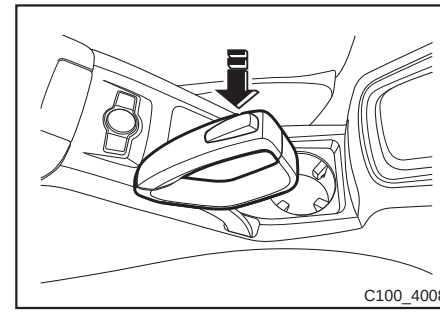
The park brake acts on the rear wheels and the lever is located between the front seats.

To apply the park brake, stop the vehicle, apply the brake pedal and pull the lever firmly upward.

To release the park brake:

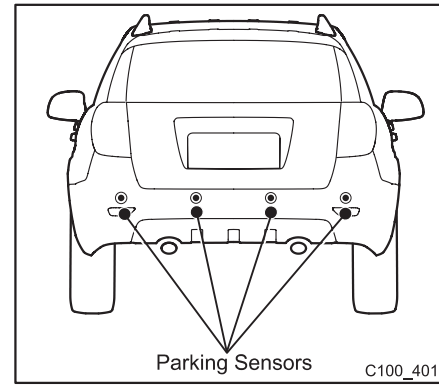
1. Push the button on the lever.
2. Pull the lever up slightly.
3. Lower the lever while holding the button in.

WARNING
Do not drive the vehicle with the park brake applied.



*PARK ASSIST**

The Park Assist system is able to detect and indicate obstacles at the rear of the vehicle when reversing. The system consists of four sensors on the rear bumper, a control unit and a speaker in the vehicle's interior.



WARNING

- The driver is always responsible for taking care and attention while manoeuvring the vehicle. The Park Assist is only an aid and is neither intended to, nor able to take over any responsibility.
- The park sensors may not be able to detect all objects under every condition e.g. objects too close to the vehicle, objects above or below the sensors, or objects with a surface that absorbs ultrasonic waves. Additionally, some ambient conditions like ultrasonic waves or heavy rain can cause disruptive reflections from an object's surface. Such objects may not be detected.
- Always manoeuvre the vehicle slowly to allow yourself sufficient time to react. The warning alarms will sound only while the vehicle's speed is below 5 km/h.

Activating

The Park Assist system is activated automatically when:

- the ignition is switched on,
- reverse gear is selected and
- the vehicle's speed is below 5 km/h.

A short single confirmation alarm will sound to confirm that the sensors are operational.

Note The system will be deactivated when the vehicle's speed raises above 5 km/h.

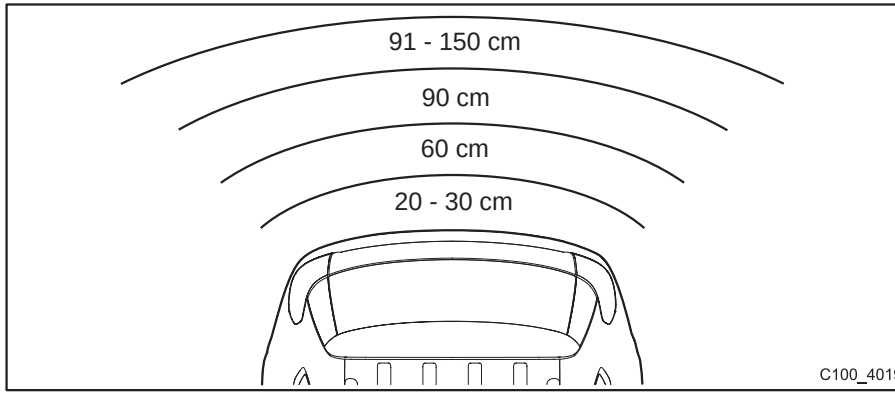
A fault in the Park Assist system is indicated by:

- The alarm sounding three times continuously when there are no obstacles around the rear bumper.
- The Park Assist lamp P illuminating while driving. Refer to *Warning/reminder indications* in chapter 1A.

The Park Assist system may not work properly during a malfunction. You should manoeuvre the vehicle with special care. Check the sensors and clean them if necessary. If the malfunction persists, have the system checked by your Holden Dealer.

PARK ASSIST* cont.

Approximate range of sensors



Alarm tones

When the vehicle approaches an obstacle the sensors will start to detecting at approximately 91 cm - 150 cm, the alarm tones will sound with a long pause between tones.

As the vehicle manoeuvres closer to the obstacle the pause between the alarm tones becomes shorter.

When the vehicle's rear bumper is approximately 20 - 30 cm from the obstacle the alarm tone will sound continuously.

Alarm	Sensing distance from bumper	Alarm tone
1st alarm.	approx. 91~150 cm.	---beep--beep--
2nd alarm.	approx. within 90 cm.	---beep-beep-beep-beep-
3rd alarm.	approx. within 60 cm.	---beep beep beep beep
4th alarm.	approx. within 20~30 cm.	Alarm stays on.

Notes on operation

- If the sensors receive other ultrasonic signals e.g. metallic sounds or exhaust brake noise from heavy commercial vehicles, the Park Assist system may not work properly.
- The Park Assist system may not activate if the sensors are frozen or covered with dirt.
- Clean dirty sensors with a soft sponge and clean water.
- Do not impact or shock the sensors by hitting or directing a high pressure water cleaner directly at them while washing, or the sensors may be damaged.
- The Park Assist system may not operate correctly when the vehicle is driven over uneven surfaces.
- The Park Assist system might not recognise sharp objects, thick winter clothes or other materials which absorb ultrasonic waves.
- The Park Assist system will automatically be deactivated when a trailer lighting plug is connected to the vehicle, it will automatically activate again when the plug is removed. The Park Assist lamp **P** will illuminate while the trailer lighting plug is connected. Refer to *Warning/reminder indications* in chapter 1A.

ENGINE STARTING

Starting procedure

1. Apply the park brake firmly and release it only after you have started the engine and are ready to drive away.
2. Manual transmission: Fully depress the clutch pedal to the floor, move the gear shift lever to the **N** (neutral) position then crank the engine. The clutch pedal can now be released.

   Automatic transmission*:* Move the shift lever to the **P** (park) or **N** (neutral) position. The engine will not start if it is in any other position. As a safety precaution, you should have your foot on the brake pedal in order to shift the transmission lever out of the **P** (park) position.
3. Start the engine as outlined below.

   For cold or hot starting, the procedure is the same. Do not touch the accelerator pedal.

   Petrol engine: Turn the key to the **START** position momentarily and then release it, as the engine starts automatically. The key automatically returns to the **ON** position when released.

   Diesel engine: Turn the key to the **ON** position, when the glow plug (preheat system) indicator lamp extinguishes, turn the key to the **START** position until the engine starts. The key automatically returns to the **ON** position when released.

   Note Diesel preheating (glow plugs) system switches on only if outside temperature is low.

   If the engine does not start within 10 seconds, wait another 15 seconds to let the starter motor cool down. Turn the key to start again with the accelerator pedal pushed completely down to the floor for a maximum of 10 seconds. If the engine still does not start, release the key and pedal. Wait another 15 seconds and then repeat the entire procedure. If the engine still fails to start, contact your Holden Dealer.

Engine will not crank or start

Remove the key from the ignition switch, insert the key and try starting the engine again.

Note If the immobiliser system indicator lamp illuminates while attempting to start the vehicle, a fault in the vehicle's immobiliser module may be indicated. The vehicle will not start with an immobiliser fault, contact your Holder Dealer to have the fault rectified.

WARNING – PETROL ENGINE
When trying to start the engine, do not hold the key in the start position for any extended time, for if unburnt fuel were to reach the catalytic converter and ignite, the catalytic converter could overheat or be destroyed by backfire.

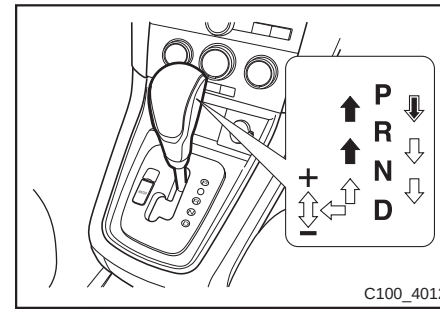
Note You should not subject the engine to high load conditions (for example full throttle acceleration or high speeds) until it has completely warmed up, otherwise, you may cause premature engine wear or engine damage.

TRANSMISSION OPERATION

AUTOMATIC TRANSMISSION*

This system has a five-speed electronically controlled automatic transmission. Its shift indicators are arranged with **P** (park) at one end, followed in sequence by **R** (reverse), **N** (neutral) and then the forward driving ranges.

To prevent the vehicle from 'creeping' you should always have your foot on the brake pedal when shifting out of **P** or **N.**



P (Park) This stops the front wheels from rotating and should be selected (together with the park brake) when leaving the vehicle. Never select **P** until your vehicle is fully stopped. The **P** position is one of only two positions (the other is **N**) in which your engine may be started.

Note The vehicle is equipped with Brake Transmission Shift Interlock (BTSI). To move the transmission gear selector lever out of position **P** (park), have the ignition switched on and depress the brake pedal. If the vehicle's battery is flat, refer to *Shift lock control system* in chapter 6.

R (Reverse) Never select **R** until your vehicle is fully stopped. The reversing lamps operate when **R** is selected and the ignition is on. After reversing, ensure the vehicle has fully stopped before selecting a forward gear.

N (Neutral) This is the out-of-gear position. You may restart a stalled engine while the vehicle is still moving or stopped.

D (Drive) This is the normal forward driving position and allows the transmission to choose the appropriate gear (1st through to 5th) for the driving conditions and optimum fuel economy.

Fifth gear is overdrive which reduces engine speed and noise levels while increasing fuel economy.

Shifting between gear positions

Movement between certain gear positions requires pressing the release button on the front of the selector grip.

When the ignition is on, depress the brake pedal and press the release button on the front of the selector grip as indicated by the black/or white arrows as follows:

⇛ You must apply the brake pedal and press the release button on the selector grip to shift.

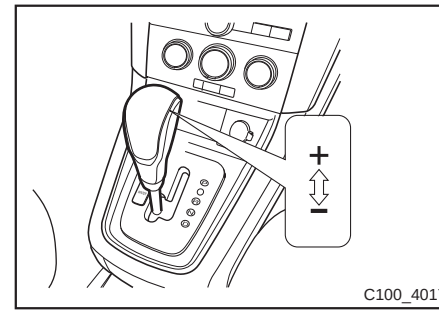
➡ You must press the release button on the selector grip to shift.

⇨ It is not necessary to apply the brake pedal or press the release button on the selector grip to shift.

WARNING
You can select some transmission positions without pressing the button on the selector grip. However, it is recommended that you become familiar with these positions to prevent any accident or damage to your transmission that may occur due to incorrect operation.

TRANSMISSION OPERATION cont.

Active select mode



Whether your vehicle is stationary or in motion, active select mode is selected by pushing the select lever from the **D** position to the left into the manual gate, To return to **D** range operation, pull the select lever back to the right into the main gate.

In active select mode moving the select lever backward and forward can make rapid gear shifts simple. In contrast to a manual transmission, the active select mode allows gearshifts with the accelerator pedal depressed.

UP (+) Push the lever forward once to shift up one gear.

DOWN (-) Pull the lever backward once to shift down one gear.

Note

- In active select mode, only the five forward gears can be selected.
- To reverse or park the vehicle move the select lever to the **R** or **P** position as required.
- In active select mode, downward shifts are made automatically when the vehicle slows down. When the vehicle stops, 1st gear is automatically selected.
- To maintain the required levels of vehicle performance and safety, the system may not execute certain gear shifts when the select lever is operated.
- Before driving away from a stop on slippery road, push the select lever forward into the **+** (up) position. This causes the transmission to shift into 2nd gear for a smooth start. Pull the select lever to the **–** (down position) to shift back to 1st gear.

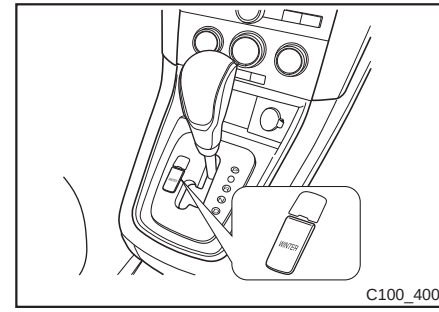
TRANSMISSION OPERATION cont.

Winter mode

Use the winter mode in the event of starting or driving difficulties on icy and slippery roads. This mode will reduce slippage and loss of traction.

To activate the winter mode, press the winter mode switch on the centre console. The vehicle will move away in third gear, the winter mode indicator will illuminate on the instrument panel.

To return to normal mode, press switch again, the indicator lamp switches off.



Automatic transmission emergency operation

If a problem is detected with the automatic transmission, the Malfunction Indicator Lamp (MIL) illuminates.

In this situation, the transmission may not shift automatically, or shifting may be much harsher than normal. Have the vehicle serviced as soon as possible by your Holden Dealer.

If the malfunction indicator lamp stays on after starting the engine and the transmission does not shift, contact your Holden Dealer.

Operating notes

- Do not go from **P** or **N** to **R** or **D** with the accelerator pedal depressed.
- When driving down a long hill, reduce your speed and select a lower range. The engine will provide a braking effect. Remember if you ride the brakes, they may overheat, resulting in reduced performance. This is particularly important when towing.
- Be careful when accelerating, shifting up, shifting down or braking on a slippery surface. The abrupt change in engine speed, such as sudden acceleration or engine braking, could cause the drive wheels to spin or skid.
- Do not depress the accelerator pedal with the brakes on in either **D** or **R**. This would overheat the transmission.
- Do not use the accelerator pedal to hold the vehicle on a slope, use the brakes.
- Do not coast the vehicle in **N** as this lessens your control and the engine braking power.
- Always slow down in gusty crosswinds.
- For information on checking the automatic transmission fluid level, refer to *Automatic transmission fluid level* in chapter 7.

TRANSMISSION OPERATION cont.

Transmission kick down

For faster acceleration, press the accelerator pedal all the way down and hold it. The transmission will shift to a lower gear giving more power. When the desired speed is reached, lift off the accelerator and the transmission will shift up.

Engine braking

To use the braking effect of the engine compression when driving on a long downhill:

Using the active select lever, select a lower range. Engine braking is the most effective when using a lower range.

Stopping the vehicle

The select lever can be left in the chosen drive range with the engine running, when stopping on a hill, engage the park brake or press the brake pedal. Do not hold the vehicle stationary by pressing the accelerator.

Transmission shift lock control system

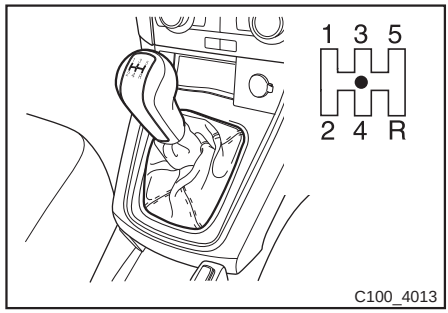
The vehicle has a Brake Transmission Shift Interlock (BTSI) system. For operating instructions refer to *Shift lock control system* in chapter 6.

TRANSMISSION OPERATION cont.

*MANUAL TRANSMISSION**

Shift patterns

The manual transmission fitted has five forward gears and a reverse gear. The shift pattern illustrated is also found on the top of the gear shift lever.



Operating notes

- When shifting from one gear to another, be sure to depress the clutch pedal fully to avoid damage to the transmission.
- Never attempt to engage reverse gear while the vehicle is still moving. Ensure a slight pause between pressing the clutch pedal and moving into reverse gear to allow all the rotating components to stop. Whenever reverse gear is selected with the ignition on, the reversing lamps illuminate.
- Shift the gear lever with a moderate effort to allow time for the transmission synchromesh to work properly.
- To avoid damage to the clutch, do not drive with your foot resting on the clutch pedal.
- When stopped on an incline, do not hold the vehicle stationary by slipping the clutch. Use the park brake or foot brake.
- When climbing steep grades, change down to a lower gear before the engine starts to labour. To maintain safe speeds on a steep downgrade and to reduce brake wear and overheating, shift into a lower gear before starting the descent.
- Do not over rev the engine when shifting down to a lower gear.

ACTIVE SAFETY SYSTEMS

ANTI-LOCK BRAKE SYSTEM (ABS)

Anti-lock Brake System (ABS) continuously monitors the vehicle's brake system and prevents the wheels from locking, irrespective of the road conditions and tyre grip. It starts to regulate the braking effect as soon as a wheel shows a tendency to lock. The vehicle remains steerable, even in the event of panic braking, for instance on bends or when swerving to avoid an obstacle.

WARNING
Do not let this special safety feature tempt you into taking risks when driving. Traffic safety can only be achieved by adopting a responsible driving style. The vehicle's speed should always be adjusted to suit road and traffic conditions.

In an emergency braking situation the driver should keep full force on the brake pedal without pumping it. Pumping the brake pedal can reduce brake efficiency when ABS is controlling the braking.

The ABS warning lamp (ABS) is illuminated for a few seconds when the ignition is switched to the **ON** position. If it does not go out, or if it comes on during driving, there is a defect in the ABS. The vehicle's brake system remains operational but without ABS assistance. Consult your Holden Dealer as soon as possible.

The braking effect is regulated by the ABS every millisecond during braking.

When your vehicle is in a critical braking condition, ABS makes itself noticeable through pulsing of the brake pedal and the noise of the regulation process, thereby reminding you to match your speed to the road conditions, even though it is keeping control of the braking.

Shortly after driving away, the system performs a self-check. The self-check may be audible as well as felt as pulsing through the brake pedal.

Brake pedal

Where possible, avoid braking hard. Smooth operation of the brake pedal will increase the life of the brakes and reduce the wear on the braking system.

If under normal vehicle operation the brake pedal develops abnormal behaviour, contact your Holden Dealer.

ACTIVE SAFETY SYSTEMS cont.

ELECTRONIC STABILITY PROGRAM (ESP®)

Monitoring

The Electronic Stability Program (ESP®), is an advanced feature that works in conjunction with the vehicle's Anti-lock Braking System (ABS) and includes the Traction Control System (TCS). When required, the ESP® improves driving stability in any driving situation.

The ESP® assists in maintaining vehicle stability by providing intervention when the vehicle's grip level is exceeded (such as a sudden lane change, slippery or unexpected road conditions). The ESP® processes information from the various vehicle sensors and can intervene by altering engine power and/or braking on specific wheels as required. This can improve the vehicle's steering control and power delivery, on wet or slippery roads, particularly on snow or ice.

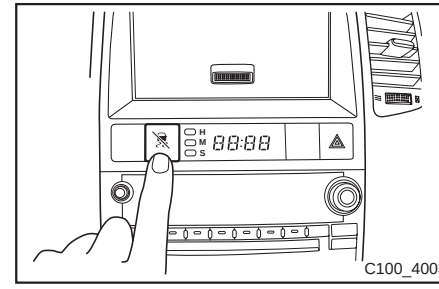
WARNING

- The use of tyres that are a different size or construction i.e. mud or snow tyres, may adversely affect the ESP® system.
- Do not let this special safety feature tempt you into taking risks when driving. Traffic safety can only be achieved by adopting a responsible driving style. The vehicle's speed should always be adjusted to suit road and traffic conditions.

ESP® off button

In certain conditions it may be helpful to disable the ESP® by pressing the ESP® off button located on the left hand side of the digital clock. For example, if the vehicle is bogged in deep mud or sand, it may be possible to get more traction from a slightly spinning wheel.

Pressing the ESP® off button again will resume the ESP® function and the ESP® off indicator will extinguish.

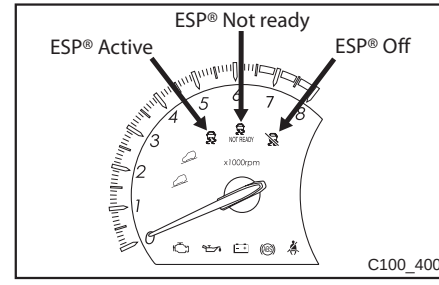


Operation

The ESP® function operates automatically in very unstable conditions, it does not operate under normal driving conditions.

The ESP® active lamp flashes while ESP® is actively helping the vehicle with road grip and stability.

If the lamp illuminates constantly, this indicates there is a malfunction in the system. Consult your Holden Dealer.



ESP® not ready

The ESP® not ready indicator illuminates when the ESP® is not ready for operation due to cold conditions, this indicator will extinguish when the vehicle warms up.

ACTIVE SAFETY SYSTEMS cont.

Hydraulic Brake Assist system (BA)

The hydraulic brake assist system is incorporated in the ESP® unit and detects when the driver is applying the brakes in a panic stop situation, by recognising how rapidly the accelerator is released and the brake pedal is applied. The BA initiates ABS earlier, shortening the stopping distance required.

Electronic brakeforce distribution (EBD)

This system senses the vehicle load (both passengers and luggage) and optimises rear braking force. This system works in combination with the ABS system to prevent excessive braking locking the rear wheels by transferring braking pressure between the front and the rear axles.

Traction control system (TCS)

This system uses sensors that detect imminent wheel spin, if one wheel is about to spin, braking is applied to transfer torque to a wheel with better traction, this improves performance when starting off and accelerating.

Active rollover protection (ARP)

This system is part of the ESP® system. When the vehicle moves in an extremely unstable manner, this system helps the vehicle maintain normal stability by detecting excessive body roll, ARP can intervene on all wheel brake cylinders and maximises the brake force on the wheels with the most amount of traction in order to slow down the vehicle and reduce the amount of body roll.

ACTIVE SAFETY SYSTEMS cont.

DESCENT CONTROL SYSTEM (DCS)

Description

The Descent Control System (DCS) is only for driving down steep gradients, it maintains the slow speed descent of your vehicle.

The descent control system works in conjunction with the cruise control system and utilises the active braking capability of the vehicle's Anti-lock Braking System (ABS) to maintain a target vehicle speed when travelling downhill.

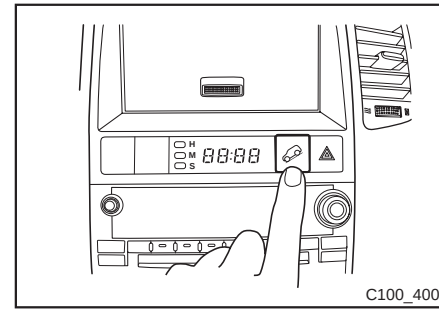
DCS on

The descent control system can be used when driving forward or in reverse.

The descent control system is activated using the switch located on the right hand side of the digital clock.

The accelerator pedal must not be depressed when DCS is activated.

The green DCS active indicator will illuminate when switched on. When the DCS is operating the DCS active indicator will flash.



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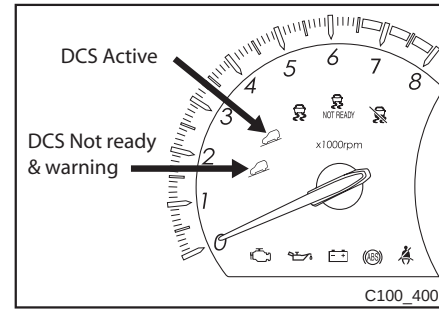
Note

- If the amber DCS (not ready/warning) indicator illuminates it indicates there is a malfunction in the DCS system. If this condition occurs, contact your Holden Dealer.
- If the driver needs to stop on a slope or go slower than 5 km/h, the brake pedal can be depressed, it will momentarily deactivate the DCS. It will re-activate a few seconds after the brake pedal is released.



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DCS off

To deactivate the DCS, press the DCS button again the DCS active indicator will extinguish.

ACTIVE SAFETY SYSTEMS cont.

Target vehicle speeds

If the DCS is activated from a standing start or up to 10 km/h the target vehicle speed will be approximately 9 km/h.

If the DCS is activated when the vehicle is travelling between 10 km/h and 30 km/h the target vehicle speed will be approximately 15 km/h.

Note

- The DCS will not operate when the vehicle speed is over 50 km/h.
- If the DCS is activated between 30 km/h and 50 km/h the system will be in standby mode only (DCS will not slow the vehicle).
- For the DCS to actively slow the vehicle to its target speed, the vehicle's speed must be below 30 km/h.
- DCS is designed for off road driving when negotiating steep gradients.
- Unnecessary usage of DCS can cause a malfunction in the brake system or ESP®. Do not use DCS when driving on normal roads.
- It is normal to have strong vibrations and noise from the brake system when DCS is activated.

ACTIVE SAFETY SYSTEMS cont.

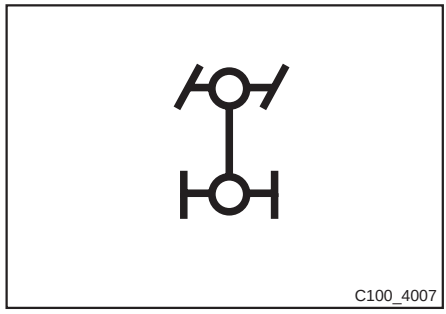
*ALL WHEEL DRIVE SYSTEM (AWD)**

Operation

The active on demand all wheel drive system (AWD) operates automatically without any action required by the driver. If the front drive wheels slip, the rear wheels automatically drive the vehicle as required. There may be a slight engagement noise during hard use, this is normal.

The AWD warning indicator on the right hand side of the instrument panel flashes when the AWD system is temporarily disabled.

If the lamp flashes briefly and then stops, this is normal and does not indicate a system fault. However if the indicator flashes continuously this indicates there is a malfunction in the AWD system. Contact your Holden Dealer.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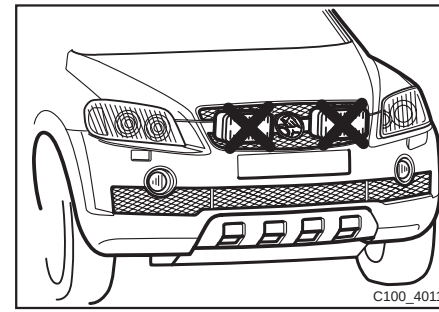
ADD ON EQUIPMENT

Fitting driving lights or insect screens

When fitting these accessories be careful not to restrict air flow, otherwise engine overheating and/or poor air conditioning performance may result.

Nothing should be fitted over the upper or lower air intakes at the front of the vehicle, as this will affect engine cooling.



Fitting roo/nudge bars

If a nudge bar is to be fitted, it is critical the Holden approved nudge bar be used. Other types must not be fitted. The Holden nudge bar is available from your Holden Dealer and has been compatibility tested with the vehicle's design, including the Holden airbag system.

WARNING
Fitting other types of roo/nudge bars may affect crash performance, airbag performance and engine cooling.

Fitting a roo bar, or making other modifications to the front of the vehicle, may change the impact speed which would normally cause the airbag to inflate, reducing its effectiveness. Roo bars should not be fitted to vehicles operating in suburban areas, as they increase the risk of injury to a pedestrian in the event of a collision. Roo bars are only recommended for country or outback areas, where additional protection from straying animals is required. Please remember that defensive driving and limiting driving speed to the road conditions is always the best approach, particularly where road side signs indicate wildlife is abundant.

Cargo barrier

If a cargo barrier is to be fitted, it is critical the Holden approved cargo barrier be used. Other types *must not* be fitted. The Holden cargo barrier is available from your Holden Dealer and has been compatibility tested with the vehicle's design, including the Holden side curtain airbag system, fitting any other type of cargo barrier may interfere with the deployment of the side curtain airbag system and reduce its effectiveness in protecting passengers (excluding third row seats) in the event of a collision.

CHAPTER 5

Fuel

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Reducing fuel consumption 5-8

WARNING

The vehicle's engine has not been designed for conversion to LPG. The performance and safety of the vehicle would be seriously jeopardised if converted to LPG.

*The asterisk signifies equipment options not in all vehicles, model variants, engine options, optional equipment and Genuine Holden Accessories (and Parts).

FUEL

EXHAUST WARNING: CARBON MONOXIDE POISONING

- Exhaust gases contain carbon monoxide, a dangerous gas, which can cause unconsciousness and even death to both humans and animals.
- You could inhale the gases if the exhaust system on your vehicle is faulty.
- To protect against exhaust gases entering the vehicle, the exhaust system and body should be inspected:
  - each time the vehicle is serviced,
  - whenever a change is noticed in the sound of the exhaust system,
  - whenever the exhaust system, underbody or rear of the vehicle is damaged.
- Take the vehicle to your Holden Dealer if you think your vehicle needs inspecting for any of the above reasons.
- Do not sit (or leave children or pets) in a parked vehicle for any extended period of time with the engine running. Turn the fan on using any setting that brings outside air into the vehicle. Do not run the engine in an enclosed area (such as a garage) any longer than needed to move the vehicle.
- Be sure to seal any unused top strap anchor location holes with the supplied plug or with a suitable bolt. Otherwise exhaust gas may enter the vehicle through these holes. See *Child restraints* in chapter 3, Know your vehicle.

ETHANOL WARNING – PETROL ENGINE

- Under no circumstances should you use fuel containing more than 10% ethanol. Use of such fuels may result in engine malfunction, starting and operating difficulties, and materials degradation. These adverse effects could result in permanent damage to your vehicle and personal injury. Purchasing your fuel from a reputable fuel retailer may reduce the risk of purchasing fuel with more than 10% ethanol or fuel which contains abnormal fuel properties.
- It is also important to note that when ethanol blends are used, fuel consumption can be expected to increase due to the lower energy content of ethanol.

FUEL cont.

PETROL WARNING

- Petrol is extremely flammable and highly explosive.
- Always switch off the engine and any mobile phones when refuelling.
- Do not smoke or allow open flames or sparks near the vehicle when refuelling.
- If petrol fumes are smelt while driving, the cause should be found and corrected without delay by a Holden Dealer.
- Static electricity can ignite fuel vapour. Only use pumps, hoses and containers that are properly grounded when filling up with fuel.
- To avoid injury, to you and to others, read and follow all instructions on the petrol station pump.

DIESEL WARNING

- When purchasing diesel fuel, we recommend that your vehicle be operated on diesel fuel containing no more than 5% fatty acid methyl ester (“FAME”) also known as “B5”. Purchasing your fuel from a reputable fuel retailer may reduce the risk of purchasing fuel with more than 5% FAME or fuel which contains abnormal fuel properties.
- Under no circumstances should you use diesel fuel containing ethanol. Use of such fuels may result in engine malfunction, starting and operating difficulties, and materials degradation. These adverse effects could result in permanent damage to your vehicle and personal injury.

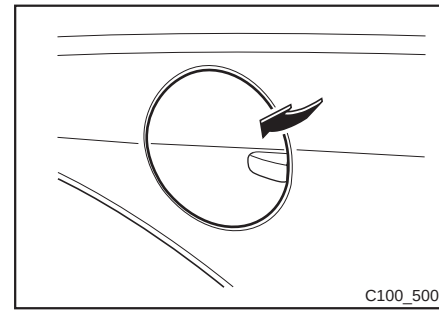
FUEL cont.

FUEL FILLING

Fuel filler door

- Stop the engine.
- Unlock the doors.
- Open the fuel filler door by hand.

Note The fuel filler door will unlock when the button on the key is pressed.

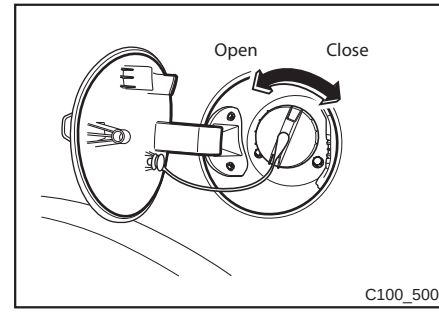


Fuel cap

Remove the fuel cap by turning it slowly anticlockwise.

Note The fuel cap can be stored on the inside of the fuel filler door while filling up with fuel.

WARNING
If you open the cap rapidly while pressure in the tank is high, fuel may spray out from the tank. Turn it slightly to release the pressure from inside the tank.



After refuelling, turn the fuel cap clockwise until a clicking sound is heard, then push the fuel filler door closed. When closing the fuel door, make sure that it latches.

Fuel tanks should always be filled at the intermediate or fast fill rate. Do not add any more fuel after the fuel filler first clicks off or fuel blows back - as this allows room for the fuel to expand inside the tank.

If you accidentally spill fuel on the vehicle's exterior surfaces, it can damage the paint. Wash it off as soon as possible.

Petrol filler nozzle restrictor

To help protect the atmosphere, your vehicle has been designed to operate on unleaded petrol. A petrol nozzle restrictor is fitted to ensure that only unleaded petrol is used. This allows the smaller diameter unleaded petrol nozzle to open the hinged flap inside the filler neck, so that petrol can be added to the tank. The leaded petrol nozzle is wider and therefore cannot open the flap.

WARNING
The use of fuel, other than the fuel specified, may cause serious damage to your vehicle and may void your warranty. Only clean fuel of good quality should be used.

FUEL cont.

FUEL TYPES

Fuel requirements for diesel engines

Diesel engines must be operated only on commercially available ultra low sulphur diesel fuel meeting the requirements of the Australian National Fuel Standards. The use of bio-diesel containing up to 5% fatty acid methyl ester ("FAME") also known as "B5" is also permitted provided that the fuel properties still meet the Australian National Fuel Standards. Do not use marine diesel oils, heating oils or entirely or partially plant-based diesel fuels, such as rape seed oil or bio-diesel containing more than 5% FAME.

WARNING
Use only Ultra Low Sulphur Diesel (ULSD) fuel or bio-diesel containing up to 5% FAME that meet the Australian National Fuel Standards based on EN590. Use of any fuel other than the fuels specified, may cause serious damage to your vehicle and may void your new vehicle warranty.

Note From January 1, 2006, ULSD became the national standard for diesel fuel sold within Australia.

Fuel requirements for petrol engines

Note Use UNLEADED PETROL of 91 (RON) octane rating or higher.

High octane unleaded petrol (premium etc.) may be used, but is not required for your vehicle. The use of fuel with a lower octane rating than recommended may cause engine knock. Continued use of such fuel can cause engine damage and void the warranty. If you detect a heavy engine knock even when using fuel of the recommended octane rating, have the engine checked.

EMISSION CONTROL

PETROL ENGINE

Your vehicle is fitted with emission control systems which are designed to reduce the amount of hydrocarbons (HC), carbon monoxide (CO), and oxides of nitrogen (NOx) that are emitted from the engine and fuel system into the atmosphere. HC and NOx, when exposed to sunlight under certain conditions can contribute to smog. In addition, carbon monoxide is toxic when it becomes highly concentrated in the air.

The three major emission control systems fitted to your vehicle are:

- **Evaporative emission control system**
  This system is designed to prevent the escape of fuel vapour from the fuel system and recycles it through the normal combustion process.
- **Crankcase emission control system**
  This system is designed to prevent blow-by gases from escaping into the atmosphere and recycles them through the combustion process.
- **Exhaust emission control system**
  The various components of this system operate collectively to limit HC, CO and NOx emissions in the exhaust gas. The exhaust emission control system is comprised of components including electronic control of spark, fuel and idle speed. In addition, Australian vehicles have a catalytic converter and closed loop mixture control system.

Owner responsibility

Vehicles sold and serviced within Australia have been designed to comply with Australian Design Rules and State Regulation emission requirements.

The engine control system or the exhaust system of the vehicle must not be modified in any way. Any change to the design may increase the emissions or otherwise defeat the intent of the regulations.

WARNING
Any person who removes, modifies or hinders any part of the emission control system may be contravening Australian Design Rules, refer:
- A.D.R. 83/00 (External Noise for Motor Vehicles).
- A.D.R. 79/01 (Emission Control for Light Vehicles, ‘Euro 3’).
- A.D.R. 30/01 (Smoke Emission Control For Diesel Vehicles).

It is also illegal to drive a vehicle modified in this way.

First drive

When the vehicle is driven for the first time, wax and oil on the exhaust system may evaporate, producing smoke-like emissions that should not be inhaled. Allow wax and oil to evaporate while the vehicle is in the open air.

Maintenance requirements

To ensure continuing compliance with the regulations, you must have the vehicle serviced at the frequency shown in the *Maintenance schedule*, in the Service/warranty booklet. Your Holden Dealer will maintain the vehicle’s emission control system as per the vehicle’s Service/warranty booklet.

It is recommended that the necessary servicing be performed by an authorised Holden Dealer who has the specialised servicing equipment and trained personnel available to ensure that the adjustments and services specified are carried out.

EMISSION CONTROL cont.

DIESEL ENGINE

Diesel particle filter*

The diesel particle filter is designed to collect particles from the engine exhaust gas to minimise the discharge of soot to the atmosphere. The soot particles accumulate in the particle filter and are burnt off through a process called regeneration. Regeneration is performed automatically by the vehicle's engine management system.

The diesel particle filter lamp illuminates or flashes when the diesel particle filter requires cleaning. As soon as the road and traffic situation permits it, increase speed to more than 50 km/h for a brief period (approx 15 minutes). The warning lamp will extinguish when cleaning is completed.

Note

- Turning the ignition off while the lamp is illuminated or flashing may result in increased fuel consumption and a reduction in engine oil life will occur.
- If the Malfunction Indicator Lamp illuminates this could indicate there is a fault in the Diesel Particle Filter (DPF) system. If this happens, contact your Holden Dealer.

Refer to *Diesel fuel filter* in chapter 6, for more information on draining water from the fuel filter.

REDUCING FUEL CONSUMPTION

Engine

Maintain the engine in peak mechanical condition by having it serviced regularly in accordance with the maintenance schedule in the Service/warranty booklet. This ensures items such as the spark plugs and air cleaner are maintained for minimum fuel usage and peak engine performance.

Tyre pressure

Keep the tyres at the recommended pressures. Under-inflated tyres create extra rolling resistance and waste fuel. Refer to *Tyres* in chapter 7.

Incorrect tyre pressures can also cause uneven and premature tyre wear.

Wheel alignment

Maintain correct front wheel alignment. Incorrect alignment makes the front wheels drag which wastes fuel and causes uneven and premature tyre wear.

Warm ups and idling

Avoid long engine warm ups. They are unnecessary and waste fuel. An engine takes approximately five minutes to reach its efficient operating temperature and it does this most effectively when driving.

You should also avoid long engine idling. If you have to wait for more than a couple of minutes, switch off the engine to conserve fuel.

Accelerating, driving and braking

Accelerate gently and avoid rapid accelerating from lights or stop signs. Sudden bursts of speed, full throttle acceleration and hard braking are certain fuel wasters.

Drive the vehicle at steady speeds where possible (after run-in). It is desirable to reach top gear as soon as possible, but under no circumstances should you force the engine to labour in top gear.

Riding the brake

Do not rest your foot on the brake pedal when you do not intend to brake, as this can overheat the brakes, increase brake pad wear, damage the brakes and waste fuel.

Air conditioning

Switch off the air conditioning when not required. However, once every two weeks, with the engine running, switch the air conditioner on for five to 10 minutes, even in winter, to lubricate the seals.

Loading

Unnecessary weight increases fuel consumption, especially when accelerating.

CHAPTER 6

Emergencies

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*The asterisk signifies equipment options not in all vehicles, model variants, engine options, optional equipment and Genuine Holden Accessories (and Parts).

CUSTOMER ASSISTANCE

We want you to be happy with your new vehicle, together with the people you deal with while you have the vehicle.

Normally, any problems with the sales, operation, servicing or the validity of original equipment supplied with your vehicle will be handled by your Holden Dealer's Sales and Service Department.

We realise however that, with the best intentions, misunderstandings sometimes occur.

Therefore, we suggest you discuss any concern with one of the Holden Dealer's management people. If you have not received satisfaction from the Sales Manager or Service Manager – go to the General Manager or to the Dealer Principal.

By now you should have satisfaction. If not, the Holden Customer Assistance office is at your disposal.

The Holden Customer Assistance representatives can be telephoned from anywhere within Australia for only the cost of a local call. The contact number is:

1800 033 349

If your concern relates to parts/accessories and you have made contact with the dealer or distributor without satisfaction, you may contact Holden Service Parts Operations on (03) 9797 7341.

Naturally, telephoning is the quickest and the best way to contact. However, if you prefer to write the address is:

The Manager
Holden Customer Assistance Centre
GPO Box 1714
Melbourne 3001

Your letter should clearly outline your concern or query, and include the following:

- Your name and address.
- Telephone numbers, both private and business.
- Servicing dealer's name and address.
- Vehicle model.
- Vehicle identification number (I.S.O.V.I.N.), refer to the inside front cover of the service booklet in your vehicle's glovebox.
- Date of purchase.
- Current odometer reading.

Most of this information will be found on the Vehicle Identification Certificate, located inside the front cover of the service booklet in your vehicle's glovebox.

Before you write however, remember that the telephone is the quicker and more efficient means of communication.

FOR NEW ZEALAND HOLDEN OWNERS

The information in this Owner's Handbook applies primarily to Australian Holden vehicles and there may be some differences to the Warranty and Owner Assistance provisions for New Zealand. Applicable details for New Zealand are set out in the Holden Warranty and Owner Assistance Information booklet enclosed in the New Zealand glovebox wallet.

New Zealand Assistance can be reached on:

0800 HOLDEN (0800 465 336)

This number provides access to New Zealand Roadside Assistance as well as New Zealand Customer Assistance.

If you prefer to write the address is:

The Manager
Holden Customer Assistance Centre
GPO Box 1714
Melbourne
Australia 3001

FLAT TYRE

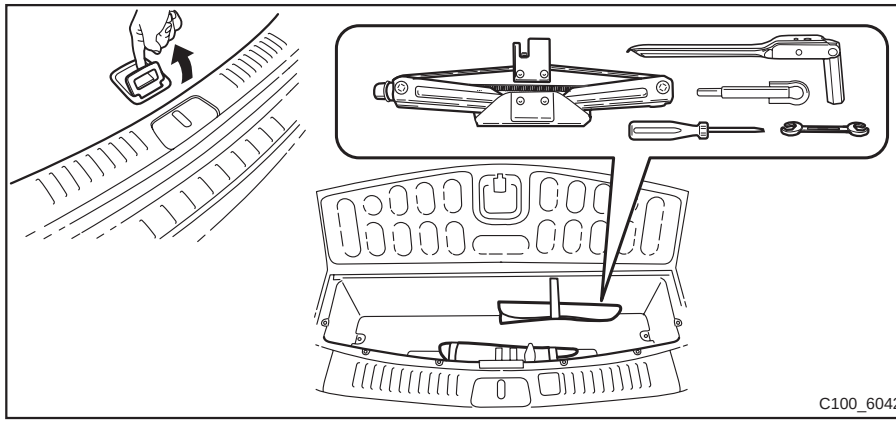
WARNING

- Use the jack only for lifting the vehicle when changing wheels and lifting the spare wheel carrier.
- Do not jack a vehicle with a trailer attached. Remove the trailer first.
- Do not get under a vehicle supported only by a jack, use vehicle support stands.
- Do not start or run the engine while the vehicle is only supported by the jack.
- All passengers should be out of the vehicle when it is being jacked.
- Use the jack only at the designated lifting points and spare wheel carrier. Use in other locations may result in the vehicle falling of the jack, or damage to the vehicle.
- The vehicle should only be jacked on hard, level surfaces.

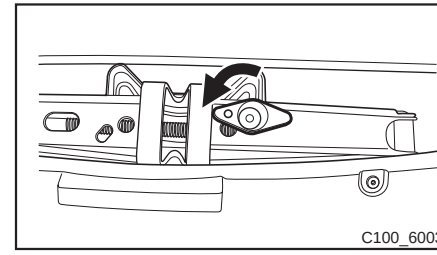
CHANGING A FLAT TYRE

- Park on level surface, ensure the wheels are pointing straight ahead and set the park brake firmly.
- Remove the ignition key (to lock the steering) and place the transmission shift lever in the **P (**park) position (automatic) or first or reverse gear (manual).
- The jack and tools are secured in the luggage storage compartment.

1. Open the tailgate.
2. To access the jack and tools lift up on the compartment handle and fold the lid upward.

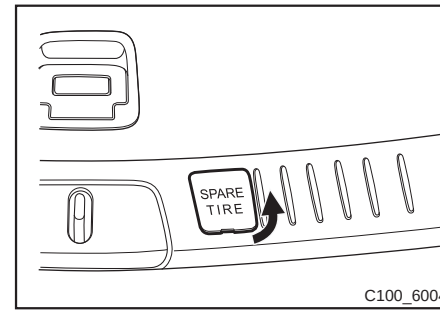


3. Remove the wing bolt from the jack by turning it anticlockwise.
4. Remove the jack and the wheel wrench.
5. Remove the straps holding the bag which contains the wheel wrench and remove the wheel wrench from the bag.

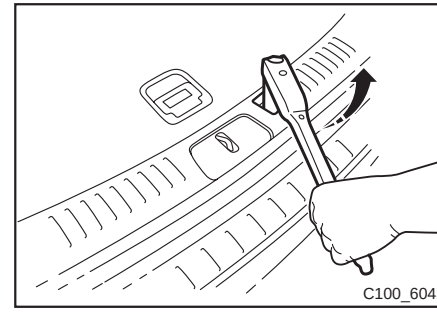


CHANGING A FLAT TYRE cont.

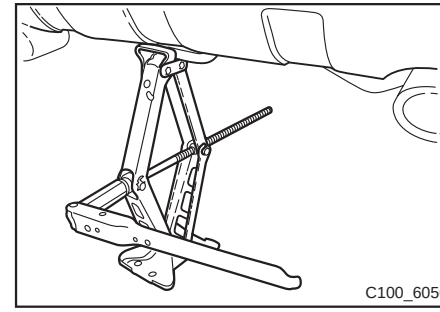
6. Use a flat-blade screwdriver (supplied) to pry off the spare wheel carrier mounting bolt cover marked **SPARE TIRE** on the rear trim of the tailgate opening.



7. Use the wheel wrench to loosen the spare wheel carrier mounting bolt (anticlockwise) securing the spare wheel carrier.

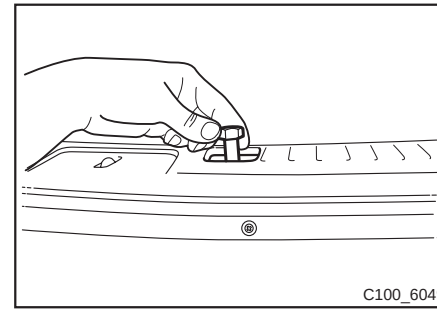


8. Place the jack under the spare wheel carrier and wind it up until it engages with the spare wheel carrier.



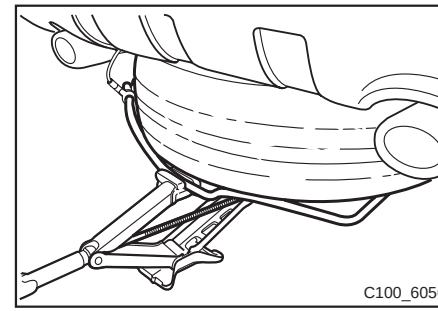
9. Loosen the spare wheel carrier mounting bolt completely.

   Note The spare wheel carrier mounting hook may fall to the ground when the mounting bolt is undone. Store the mounting hook in the luggage storage compartment.



CHANGING A FLAT TYRE cont.

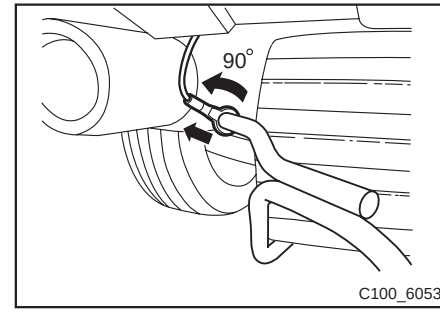
10. Lower the jack (approximately 20 cm) to the point where the spare wheel carrier check strap can be removed from the carrier.



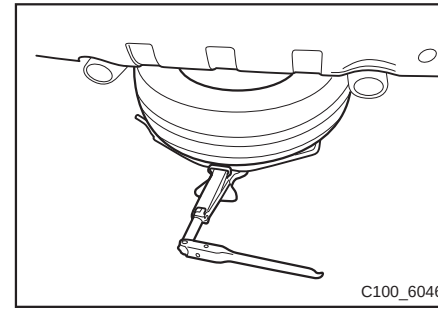
WARNING
The exhaust may be extremely hot. Do not touch any part of it.

11. Remove the spare wheel carrier check strap by rotating the eye loop anticlockwise approx. 90° and sliding it off the end of the carrier shaft towards the passenger side of the vehicle.

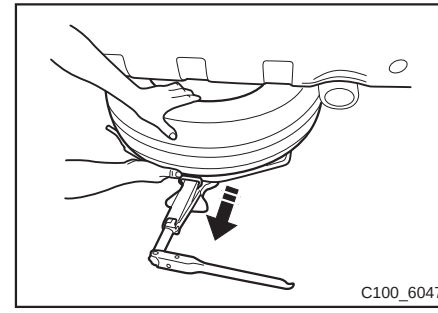
    Note The jack may need to be adjusted up or down to allow for enough slack to remove the check strap.



12. Lower the jack as far as it will go.

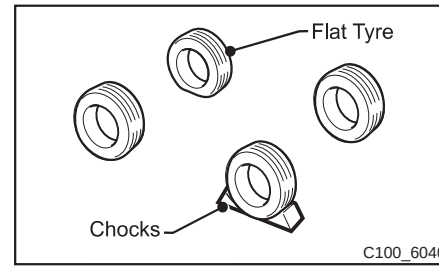


13. Remove the spare wheel from the spare wheel carrier
14. Remove the jack and wheel wrench from the spare wheel carrier.

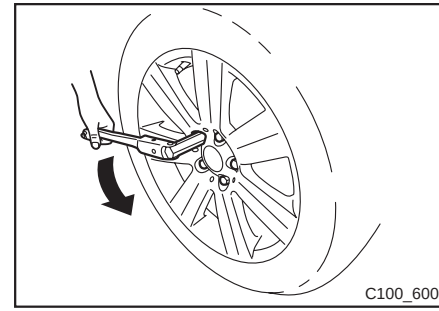


CHANGING A FLAT TYRE cont.

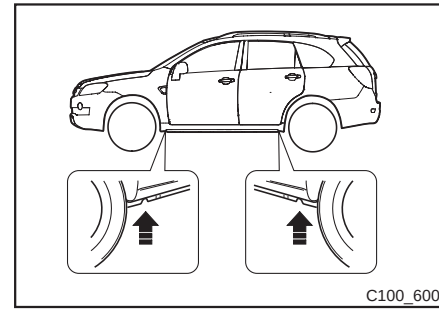
15. If possible chock the wheel diagonally opposite the flat tyre with a suitable solid object.



16. Use the wheel wrench to loosen the wheel nuts on the wheel with the flat tyre by one turn each.

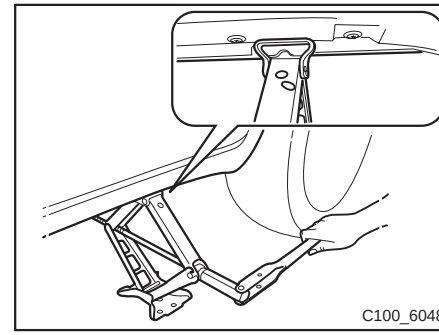


17. Place the jack under the jacking point nearest the tyre your want to change.



18. Attach the wheel wrench to the jack bolt head.
19. Turn the jack handle clockwise to raise the jack, until the jack head engages the jacking point. Then raise the vehicle until there is room for the spare wheel to fit in place.

    Note Do not raise the vehicle off the ground more than necessary to change the wheel.

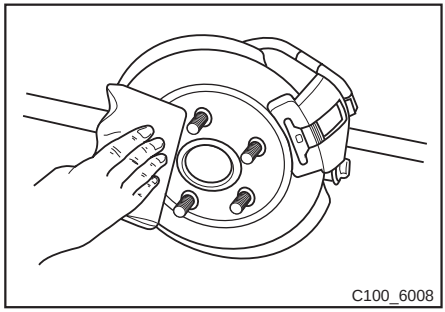


CHANGING A FLAT TYRE cont.

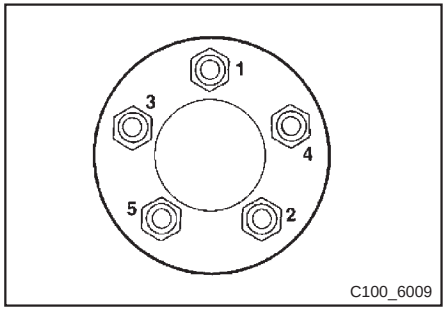
WARNING

- Failure to position the jack as described could cause the vehicle to slip off the jack.
- Do not get under a vehicle supported only by a jack, use vehicle support stands.

20. Remove the wheel nuts and wheel.
21. Remove any dirt or rust from the wheel nuts and studs, mounting surfaces and spare wheel.
22. Place the spare wheel on the wheel mounting surface.
23. Install the wheel nuts by hand. Then lightly tighten with the wheel wrench.
24. Turn the jack handle anticlockwise to lower the vehicle.
25. Remove the jack and wheel wrench.


C100_6008

26. Tighten the nuts firmly with the wrench in the pattern shown. The required torque is 125 Nm (Newton metres).



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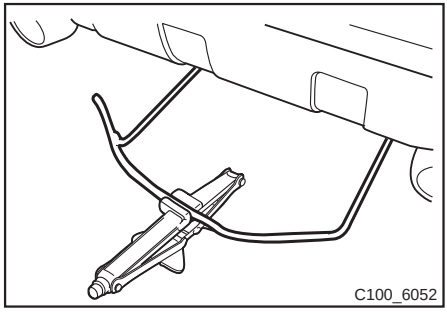
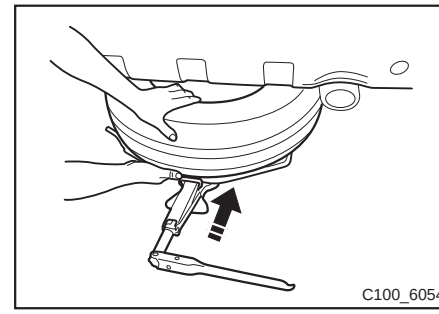
27. Position the jack under the spare wheel carrier.


C100_6052

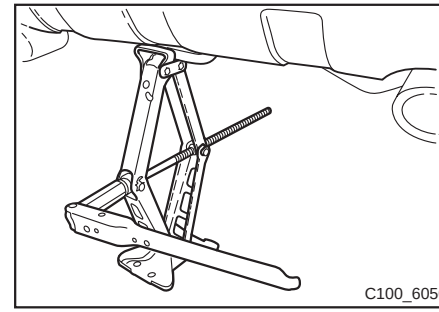
CHANGING A FLAT TYRE cont.

28. Install the flat road wheel into the carrier with its outer face toward the ground.
29. Raise the jack until the spare wheel carrier check strap can be installed.
30. Install the spare wheel carrier check strap in the reverse order to step 11.

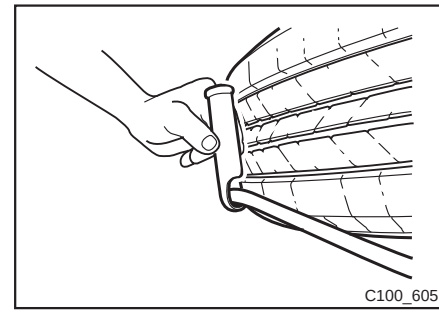
WARNING
The exhaust may be extremely hot. Do not touch any part of it.


C100_6054

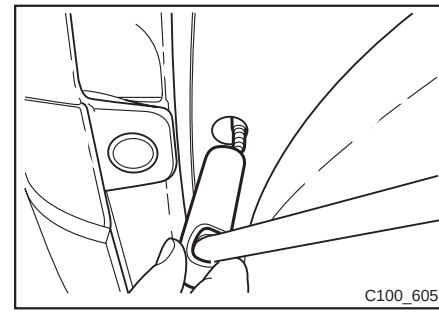
31. Continue raising the jack until the spare wheel carrier is in its original position.


C100_6050

32. Install the spare wheel carrier mounting hook onto the spare wheel carrier.


C100_6051

33. Align the spare wheel carrier mounting hook with the spare wheel carrier mounting bolt and engage the thread.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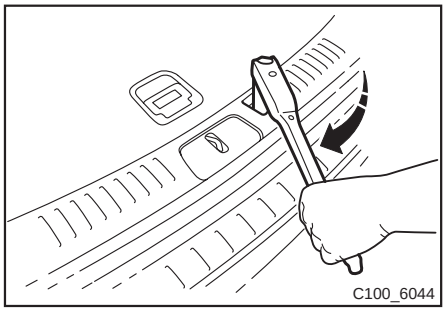
CHANGING A FLAT TYRE cont.

34. To secure the spare wheel carrier tighten the mounting bolt firmly clockwise using the wheel wrench.



35. Install the spare wheel carrier mounting bolt cover and to reduce rattling store all the equipment in the luggage storage compartment.

Note

- Have the flat tyre repaired or replaced as soon as possible.
- Once repaired or replaced, fit the road wheel to the vehicle and the spare wheel in the spare wheel carrier.

WARNING

- The steel spare wheel is for temporary use only. The vehicle must not be driven at more than 80 km/h when this wheel is fitted.
- As soon as possible after changing a wheel, you should have the wheel nuts tightened with a torque wrench to 125 Nm (Newton metres) evenly in the sequence shown. Wheel nuts which have not been properly tightened could eventually allow the wheel to come off while the vehicle is moving!
- Have the repaired road wheel balanced on the vehicle.

TOWING A DISABLED VEHICLE

EMERGENCY TOWING

Proper lifting or towing equipment is necessary when lifting or towing the vehicle to prevent damage. State and local laws must be followed. In an emergency, the vehicle may be towed on all four wheels for short distances only in the following manner:

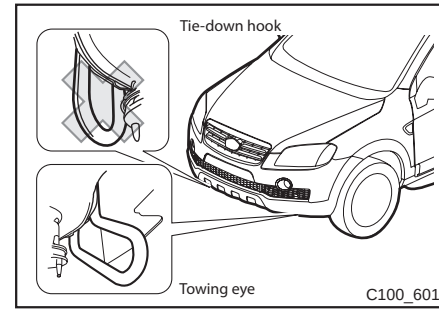
1. Fit the towing equipment to the front towing eye located under the front bumper on the passengers side. Do not attach towing equipment to the bumpers or brackets, suspension or cross members.
2. Turn the ignition key to the **ON** position. This frees the steering lock and allows the correct operation of windscreen wipers and turn signals.
3. Place the transmission in **N** (neutral) and release the park brake.

   Note – Automatic transmission* refer to *Shift lock control system* further on in this chapter, if the vehicle's battery is flat and needs towing.
4. For safety and to prevent damage to the vehicle, avoid jerky movements and drive slowly during towing operations.
5. Remember that power assist for brakes and power steering are not available when the engine is switched off. The brakes and steering still function, but require greater effort.
6. To prevent exhaust fumes from the towing vehicle entering the towed vehicle, close the windows and move heating and ventilation controls to the 'recirculate' position.
7. Vehicles fitted with automatic transmissions must not be towed for more then 55 km or at speeds over 55 km/h.
8. Vehicles with damaged transmissions must not be towed.
9. Only the driver should be inside a towed vehicle.

FRONT TOWING EYE

The front towing eye is provided under the front bumper. A driver must be in the vehicle to steer it and operate the brakes. Towing in this manner may be done only on hard-surfaced roads for a short distance and at low speeds. Also, the wheels, axles, drive train, steering and brakes must be in good condition.

WARNING
Do not use the front or rear tie-down hooks for towing.

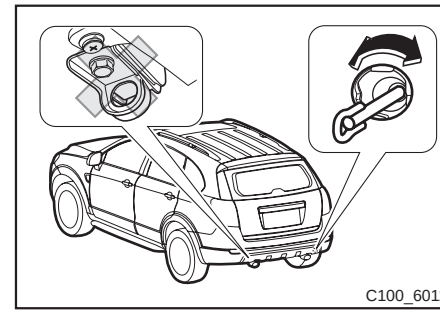


TOWING A DISABLED VEHICLE cont.

REAR TOWING EYE

When towing another vehicle, use the rear towing eye. It should be used only in an emergency situation.

To use the rear towing eye attachment, use the following procedure:


C100_6011

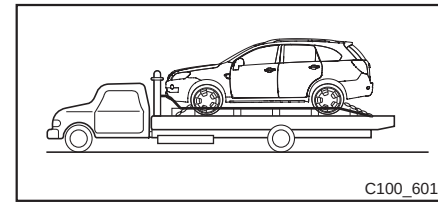
1. Locate the rear towing eye attachment in the compartment under the rear luggage area floor cover.
2. Open the cover plate on the bumper bar by pressing the bottom of the cover and pulling it downwards.
3. Screw the towing eye attachment anticlockwise firmly into place, using the handle of the wheel wrench.
4. When using the rear towing eye attachment always apply force in a straight direction with respect to the towing eye. Do not apply force from any side direction.

WARNING
Do not use the front or rear tie-down hooks for towing.

FRONT WHEEL DRIVE (FWD) VEHICLES

Using a flat-bed tow truck

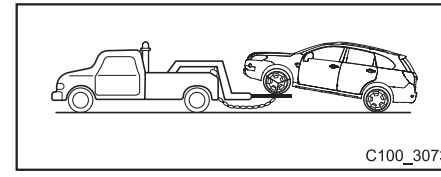
A flat-bed tow truck is the best method of towing the vehicle to avoid damage.


C100_6012

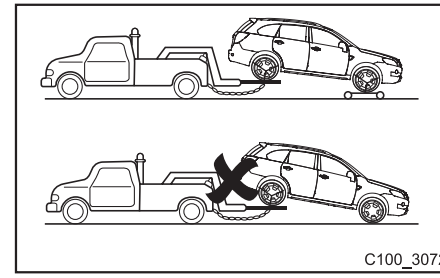
Using a standard tow truck

If a flat-bed tow truck is not available:

1. Use a standard tow truck, where the front wheels are raised and the rear wheels are in contact with the ground or


C100_3073

2. A standard tow truck using a towing dolly to prevent the front wheels from contacting the road will be suitable.


C100_3072

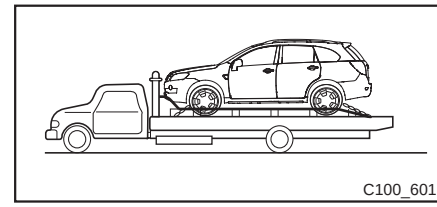
WARNING
If the vehicle is towed with the front wheels contacting the road, the vehicle's drive system could be severely damaged.

TOWING A DISABLED VEHICLE cont.

ALL WHEEL DRIVE (AWD) VEHICLES

Using a flat-bed tow truck

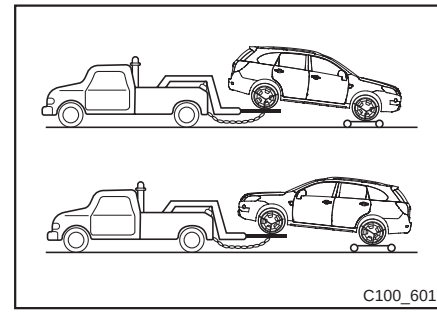
A flat-bed tow truck is the best method of towing the vehicle to avoid damage.


C100_6012

Using a standard tow truck

If a flat-bed tow truck is not available a standard tow truck using a towing dolly to prevent the front or rear wheels from contacting the road will be suitable.

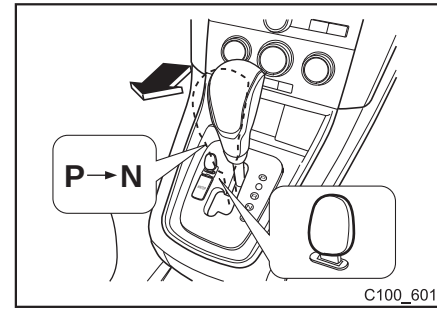
WARNING
If the vehicle is towed with the front or rear wheels contacting the road, the vehicle's drive system could be severely damaged.


C100_6013

SHIFT LOCK CONTROL SYSTEM (AUTOMATIC TRANSMISSION)*

Your vehicle has a Brake-Transmission Shift Interlock (BTSI) system. Before shifting from **P** (park), the ignition must be in the **ON** position and the brake pedal must be applied.

If the system does not respond to the above procedure and the shift lever can not be moved, use the following procedure:



C100_6016

1. Switch off the ignition and remove the key.
2. Apply and hold the brake pedal.
3. Remove the cap from the transmission shift lock slot.
4. Insert and press the ignition key into the transmission shift lock slot.
5. Shift the gear lever to **N** (neutral).
6. Remove the key from the slot.
7. Start the engine and shift the transmission into the desired position.
8. Reinstall the cap.
9. Refer to your Holden Dealer as soon as possible.

Note

- If the shift lever is returned to the **P** (park) position, the above procedure will need to be repeated to shift the lever into **N** (neutral).
- The above procedure will need to be carried out if the vehicle has a flat battery and requires towing.

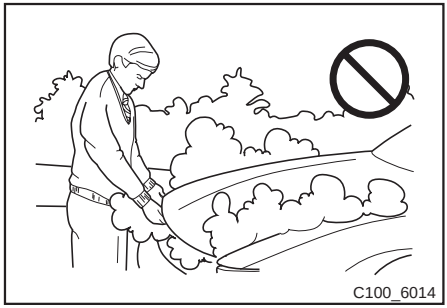
ENGINE OVERHEATING

WARNING
Immediate action is required if the engine overheats. This can be indicated by the temperature gauge needle moving to the red zone, by steam escaping from under the bonnet, a loss of power or a loud knocking or pinging noise.

Continued driving even for a short time could result in a fire or vehicle damage.

If the coolant temperature gauge needle should move to the **H** position and remain there for more than 30 seconds, pull over to the side of the road. Leave the engine idling while you step out of the vehicle to check if the cooling fan is working.

WARNING
- Do not open the bonnet if you can see or hear steam or coolant escaping from the engine compartment. Wait until no steam or coolant can be seen or heard before opening the bonnet.
- Do not remove the cooling system cap if the engine and radiator are still hot. Scalding fluid and steam can be blown out under pressure which could cause serious burns.


C100_6014

If the fan is working and the temperature gauge needle has not returned to its normal position within a few minutes, stop the engine and remove the ignition key.

Look for leaks from the radiator hoses and connections, heater hoses and connections, radiator and water pump and fan belt. Take care when checking all of these areas as they may still be hot.

If you find a major leak or other problems that may have caused the engine to overheat, do not run the engine until these problems have been corrected.

If you do not find anything wrong then you should check the engine coolant level in the radiator reservoir tank. Refer to *Under bonnet checks* in chapter 7, for the location.

ENGINE OVERHEATING cont.

If you see or hear steam coming from the engine, stop and switch the engine off. Do not open the bonnet until the engine has cooled down.

If the temperature gauge is high with no sign of steam:

1. Pull over and stop the vehicle as soon as it is safe to do so.
2. Switch off your air conditioner.
3. Run the engine at idle speed for about 3 minutes.
   The engine cooling fan should be running.

If the fan is not operating and steam is visible:

1. Switch off the engine.
2. Move away from the vehicle without opening the bonnet.
3. Let the engine cool down.
4. When steam is no longer visible, carefully open the bonnet.
5. Have the vehicle serviced as soon as possible.

If the fan is operating with no sign of steam:

1. Open the bonnet.
2. Let the engine idle until it is cool.
3. Check the coolant level.

If the fan is operating but the engine temperature does not fall:

1. Switch off the engine.
2. Open the bonnet.
3. Let the engine cool down.
4. Check the coolant level.

If the coolant level is low, there may be a leak in the cooling system:

Check for leaks in the following areas:

1. Radiator.
2. Radiator hoses.
3. Radiator connections.
4. Heater hoses.
5. Heater hose connections.
6. Water pump.

WARNING
Do not remove the cooling system cap if the engine and radiator are still hot. Scalding fluid and steam can be blown out under pressure which could cause serious burns.

ENGINE OVERHEATING cont.

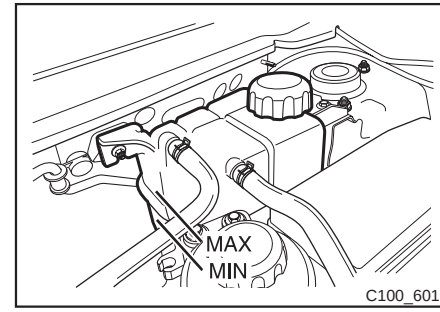
WARNING
The cooling system is pressurised, so to avoid injury please read all of the following instructions before attempting to add coolant.

Without undoing the coolant reservoir cap, look at the level of the coolant in the see-through coolant reservoir.

When the engine is hot the level should be above the **MIN** mark.

If the level is at or below the **MIN** mark when the engine is hot, coolant will need to be added as follows:

- Allow the engine to cool a little.
- The coolant reservoir is pressurised, so cover the cap with a thick cloth. Remove the cap very slowly to allow any pressure to escape.
- If water is added it should be clean.
- Top up the coolant reservoir to the **MAX** mark while the engine is idling.
- Replace the coolant reservoir cap.



WARNING
Do not spill coolant on the vehicle's exterior surfaces. It can damage the paintwork. If you do, wash it off immediately.

If after taking one or more of the above actions the temperature gauge no longer indicates an overheat condition you can resume driving at a reduced speed. Return to normal driving after 10 minutes if the temperature gauge does not again show an overheat condition. If overheating occurs again you should have the vehicle attended to, as soon as possible, by a Holden Dealer.

The engine may temporarily operate at high temperatures during demanding operating conditions, especially on hot days, including:

- Climbing a long hill.
- Stopping immediately after high speed driving.
- Idling for long periods in traffic.
- Towing a heavily laden trailer.

Note It may help to switch off the air conditioner in these conditions.

Refer to *Engine coolant level* in chapter 7, for instructions to help protect your cooling system from overheating.

FLAT BATTERY

WARNING

- Do not push start or tow start your vehicle. If unburnt fuel were to reach the catalytic converter and ignite, the converter could overheat or be destroyed by backfire. Therefore, if the battery is flat, you can jump start, but not push start your vehicle.
- To protect your vehicle's electrical system never disconnect the battery when the engine is running. Never charge the battery while it is still connected to the vehicle, first disconnect the negative cable, then the positive cable. The polarity of the battery, i.e. the connections for the positive and negative cables, must not be interchanged when reconnecting. First connect the positive cable, then the negative cable.

If your vehicle does not start due to a discharged battery, it can often be started by using energy from another battery, a procedure called jump starting.

Please read the following procedure before attempting to jump start your vehicle.

However, if after reading the following procedure you are still unsure about jump starting we strongly recommend for your safety and to avoid damage to your vehicle that you seek the assistance of a suitably trained service technician.

Jump starting

WARNING

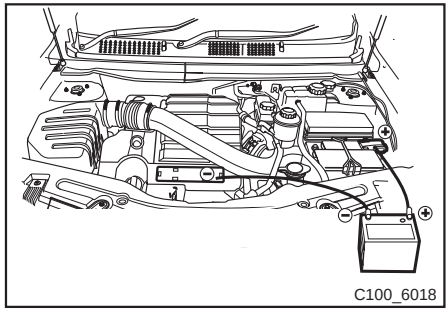
Batteries produce explosive gases, contain corrosive acids and supply levels of electrical current high enough to cause burns. Therefore, adhere to the following when working near a battery:

- Do not use open flames or sparks near the battery.
- Do not smoke near the battery.
- Wear eye protection such as safety glasses and avoid leaning over the battery.
- Battery acid is corrosive. If it gets on your skin, wash with plenty of water immediately. If it gets in your eyes you should not only flush with lots of water but should also seek medical help. Battery acid also damages paint and fabrics. To minimise damage, wash off immediately.
- Be sure any batteries that have filler caps are properly filled with fluid.
- Remove rings, metal watch bands and other metal jewellery before working around the battery.
- Never use a quick charger to start the engine.
- If you have a telephone fitted to the vehicle, you should remove the fuse for the telephone before jump starting. Remember to replace the fuse afterwards.
- To prevent damage to the audio system, switch it off before jump starting the vehicle.

FLAT BATTERY cont.

Jump starting

1. The battery in your vehicle has a negative earth and a 12 volt rating. The battery in the other vehicle **must** also have a negative earth and a 12 volt rating.
2. Position the two vehicles so they are not touching, apply the park brakes, place the shift lever in the **P** (park) position (automatic) or the **N** (neutral) position (manual). Turn the ignition switch to the **LOCK** position and switch off all the lamps and accessories in both vehicles, except the hazard warning flasher or any lamps needed for the work area.
3. Attach one end of the red jumper lead to the positive terminal of the booster battery (identified by a red colour **+)** and the other end of the red jumper lead to the positive terminal of the flat battery.


C100_6018

4. Attach one end of the black jumper lead to the negative terminal of the booster battery (identified by a black colour, **–**) and the other end of the black jumper lead to a solid stationary, metallic point on the engine of the vehicle with the flat battery.

   Note Do not connect directly to the negative terminal of the battery, as this could cause sparks.
5. When making all connections ensure the jumper lead clamps do not touch each other. Also, ensure the jumper leads are not on or near pulleys, fans or other points that will move when the engine is started.
6. Start the engine in the assisting vehicle and run the engine at a moderate speed. Then start the engine with the flat battery. Attempts to start the engine with the flat battery should be made at one minute intervals and should not last longer than 15 seconds.
7. After starting, allow both engines to idle for approximately 3 minutes with the leads still connected.
8. Leave the engine running while removing the jumper leads in the exact reverse order they were installed. While removing each clamp, ensure it does not touch any other metal while the other end remains attached.

DIESEL FUEL FILTER*

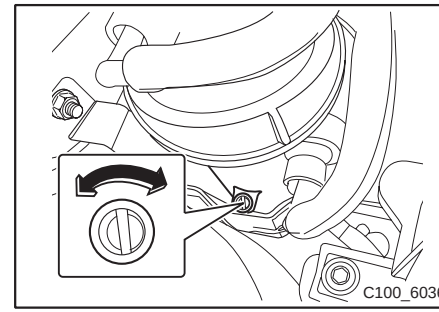
DIESEL FUEL FILTER WATER DRAINING

When the water level in fuel filter is excessive, the water in fuel filter warning lamp comes on. When this occurs, immediately drain the water from fuel filter.

WARNING
The engine and fuel system may be seriously damaged if you keep driving while the warning lamp is illuminated. Drain the fuel filter or contact your Holden Dealer as soon as possible.

1. Locate the fuel filter in the engine compartment and place a suitable container under it.
2. Turn the drain plug located in the left area of the fuel filter anticlockwise using a flat-blade screwdriver.
3. Wait until the fuel filter is completely drained of water, then turn the drain plug clockwise to tighten it.
4. Before starting the engine, perform the bleeding operation. Refer to *Diesel fuel system bleeding* below.

   Note The vehicle's fuel filter will be drained when the vehicle is serviced as per the Service/warranty booklet.



DIESEL FUEL SYSTEM BLEEDING

Perform the bleeding operation:

- If the vehicle has run out of fuel.
- After draining water from the fuel filter.

Note

- A minimum of 10 L of diesel fuel must be in the tank for the bleeding operation to work correctly.
- It is possible to restart the engine if the tank has been run dry. A delayed start is to be expected.

1. Switch the ignition to the **ON** position for approximately 5 seconds, then to the **LOCK** position.
2. Repeat step 1 five times.
3. Attempt to start the engine for approximately 40 seconds. If the engine does not start, wait at least 5 minutes and try again.

   Note If the engine still does not start, contact your Holden Dealer.

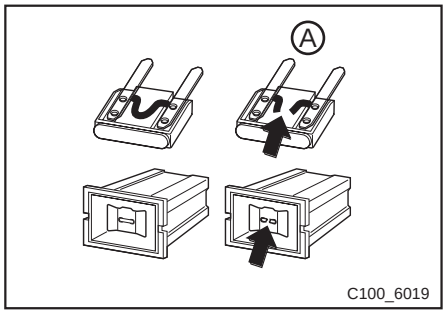
FUSE REPLACEMENT

Fuse boxes

There are two fuse boxes; one is on the left-hand side of the driver's side footwell, and the other is located toward the rear of the engine compartment next to the coolant reservoir.

Spare fuses and a fuse extractor are located in the engine compartment fuse box.

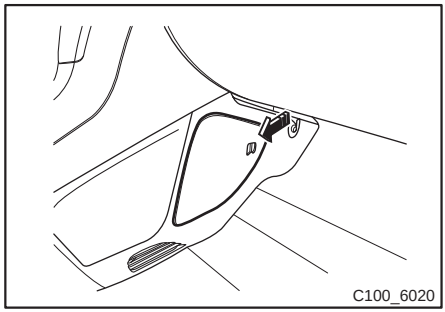
To determine whether or not a fuse is blown, it is necessary to pull out the suspect fuse and examine the wire in the fuse. A blown fuse can be recognised by its melted wire. If a fuse blows twice in a row a fault is indicated. The cause should be located and rectified by a Holden Dealer.



Footwell fuses

To open the fuse cover on the left hand side of the driver's footwell, open the driver's side door, pull the top of the cover outward.

Always ensure the cover is in place after use. The fuse amperage and designation is shown on the inside of the fuse cover.



Fuse boxes in engine compartment

❶ Diesel auxiliary fuse box*.

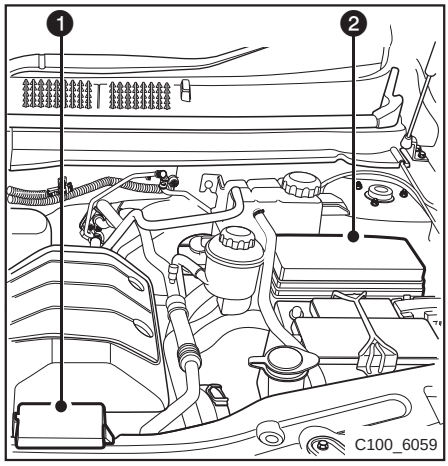
❷ Engine compartment fuse box.

This fuse box is located on the passenger side of the engine compartment, it contains circuit fuses, main fuses and relays.

To remove the cover, press the catch on the side of the fuse box toward the engine and release the two tabs at the opposite side.

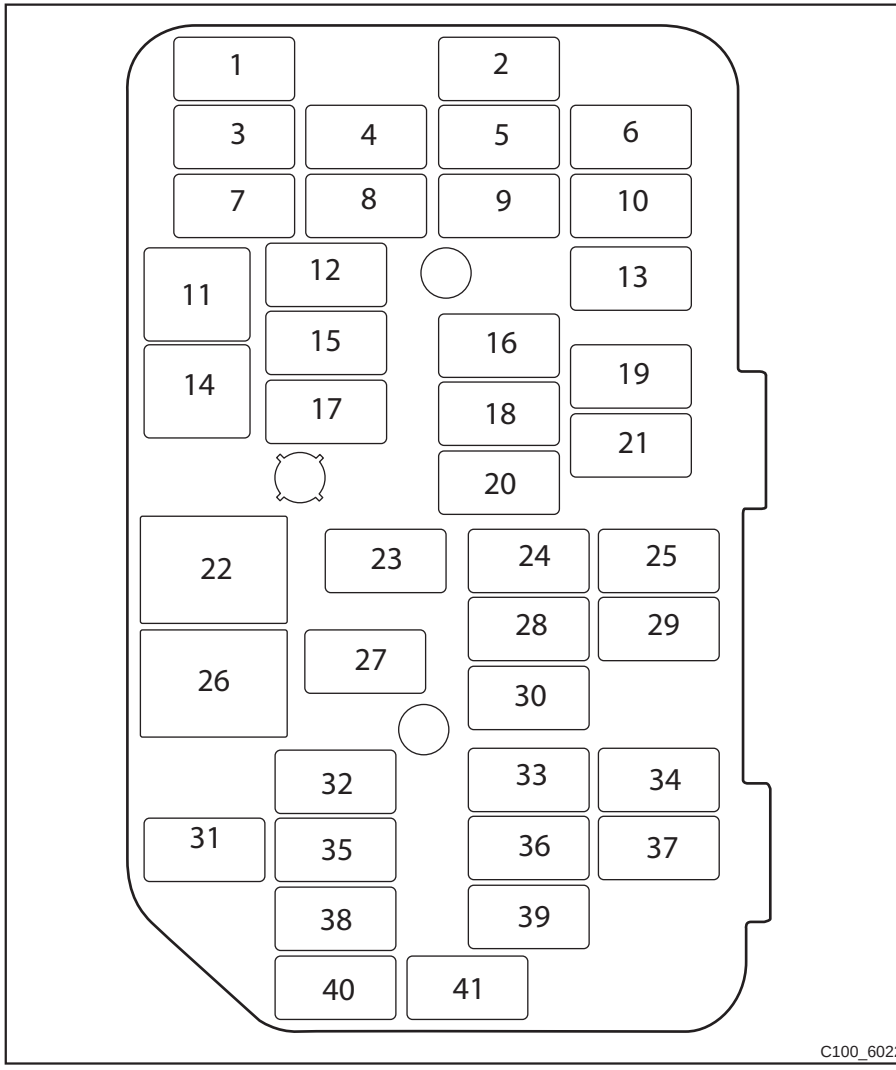
Always ensure the cover is correctly fitted after replacing or inspecting fuses.

The fuses amperage are shown on the inside of the fuse cover.



FUSE REPLACEMENT cont.

DRIVER FOOTWELL FUSE PANEL



FUSE REPLACEMENT cont.

Driver footwell fuse panel index

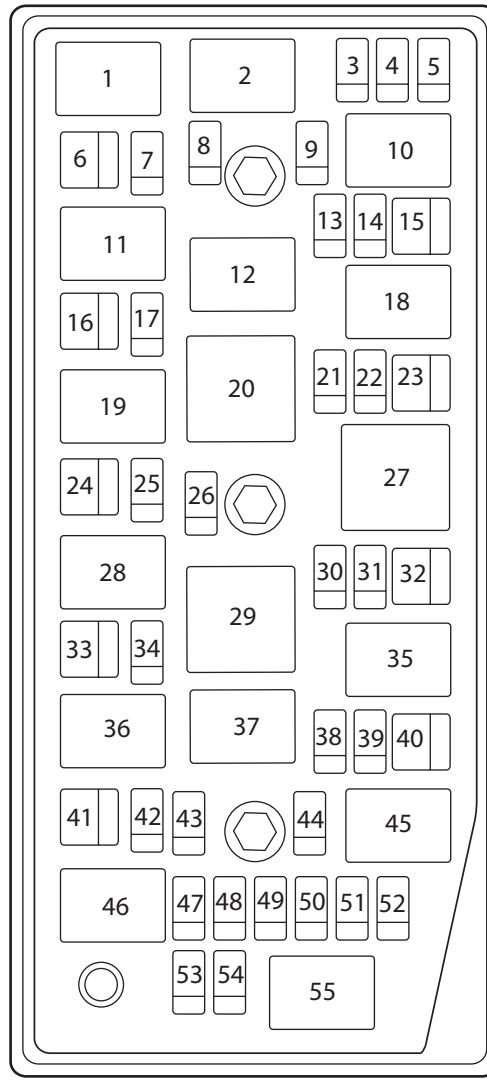
No	Allocation	AMPs	No	Allocation	AMPs
1	Front mirror	10A	**22**	Relay ACC/RAP	
2	Door lock	20A	**23**	Lift gls	10A
3	Spare		**24**	Air conditioning	15A
4	Front door lock	15A	**25**	Air conditioning	10A
5	BCM (VB6)	15A	**26**	Relay run/crank	
6	APO 1	20A	**27**	OSRVM HT	15A
7	Cigar	20A	**28**	BCM (VB2)	20A
8	APO 2	20A	**29**	Spare	
9	BCM (VB3)	15A	**30**	BCM (VB7)	15A
10	Heat/mat	20A	**31**	Clock	10A
11	Passenger power window	20A	**32**	Instrument cluster	10A
12	TCM	15A	**33**	Ignition switch	2A
13	Audio	15A	**34**	BCM (VB1)	10A
14	Driver's power window	20A	**35**	Ignition 1	10A
15	Engine	15A	**36**	Rear defrost	10A
16	BCM (VB4)	15A	**37**	Spare	
17	XBCM	10A	**38**	Airbag	10A
18	BCM (VB5)	15A	**39**	Airbag	10A
19	Spare		**40**	Spare	
20	Spare		**41**	Front washer	10A
21	Spare				

FUSE REPLACEMENT cont.

ENGINE COMPARTMENT

Relays

Relays are also contained in this fuse box; their location in the fuse box and their function is indicated on the inside of the fuse box cover.



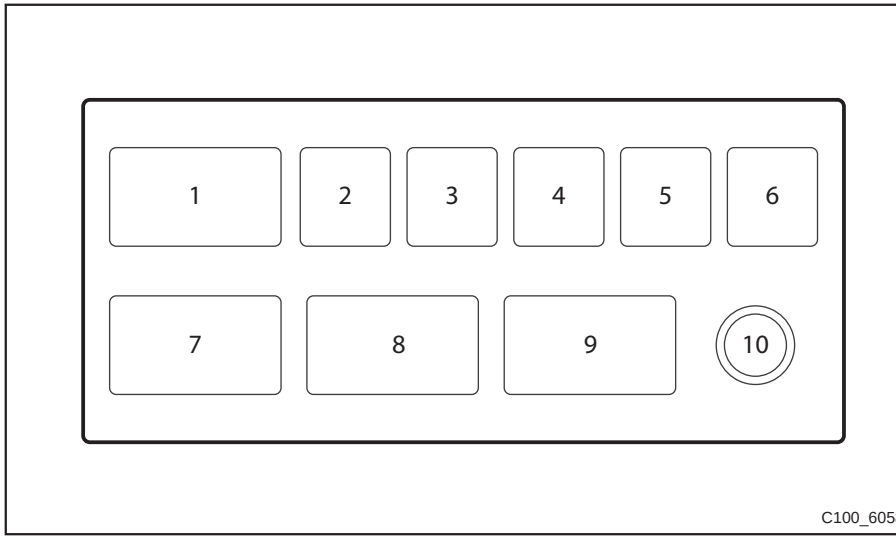
FUSE REPLACEMENT cont.

Engine compartment index

No	Allocation	AMPs	No	Allocation	AMPs
1	Starter relay		**29**	Run relay	
2	Main relay		**30**	Anti theft	15A
3	ECM	20A	**31**	Sunroof	20A
4	Engine 2	15A	**32**	Accessory/Ignition	40A
5	Engine 1	15A	**33**	Battery	60A
6	Starter	20A	**34**	Power seat	30A
7	Main	10A	**35**	Defog relay	
8	A/C compressor	10A	**36**	Front fog relay	
9	Engine 3	15A	**37**	Park lamp relay	
10	Auxiliary fan relay		**38**	H/light low RH	15A
11	A/C compressor relay		**39**	H/light low LH	15A
12	Main fan relay		**40**	Defog	30A
13	AWD	15A	**41**	Rear wiper	20A
14	Fuel	15A	**42**	H/light high	15A
15	Main fan	30A	**43**	Front fog	15A
16	ABS	40A	**44**	Park lamp LH	10A
17	ABS	20A	**45**	H/light low relay	
18	Fuel relay		**46**	H/light high relay	
19	Horn relay		**47**	Spare	
20	Fan control relay		**48**	Spare	
21	Spare		**49**	Park lamp RH	10A
22	Stop	15A	**50**	TCM	15A
23	Auxiliary fan	30A	**51**	H/light washer	20A
24	Run	40A	**52**	Spare	
25	Wiper	25A	**53**	Spare	
26	Horn	15A	**54**	Spare	
27	Wiper speed relay		**55**	H/light washer relay	
28	Wiper relay				

FUSE REPLACEMENT cont.

*DIESEL AUXILIARY FUSE BOX**



Diesel auxiliary fuse box index

No	Allocation	AMPs	No	Allocation	AMPs
1	Relay PTC 3		**6**	GPCU	60A
2	PTC 3	40A	**7**	Relay PTC 2	
3	PTC 2	40A	**8**	Relay PTC 1	
4	PTC 1	40A	**9**	Relay F/F HTR	
5	F/F HTR	30A	**10**	B+	

WARNING
When replacing a fuse, ensure the replacement fuse is of the specified amperage. Never install a wire or similar as it could damage electrical components and cause a fire.

BULB REPLACEMENT

Note If unsure of the bulb replacement process for any of the lamps, please have the work carried out by a suitably trained service technician.

Notes when replacing bulbs

- Switch the ignition off and remove the keys.
- Switch off the related switch.
- It is important to fit only bulbs of the specified wattage.
- Do not touch bulbs or reflectors with bare hands. Greasy fingers cause stains which evaporate, eventually resulting in a dull reflector. Grease spots on Halogen bulbs will, within a short time, lead to bulb failure. Clean stained bulbs with methylated spirits.
- Detailed procedures for headlamp aiming are given in the relevant service manual for your vehicle. However, because headlamp aiming is a safety item it is recommended that you have it carried out by your Holden Dealer.

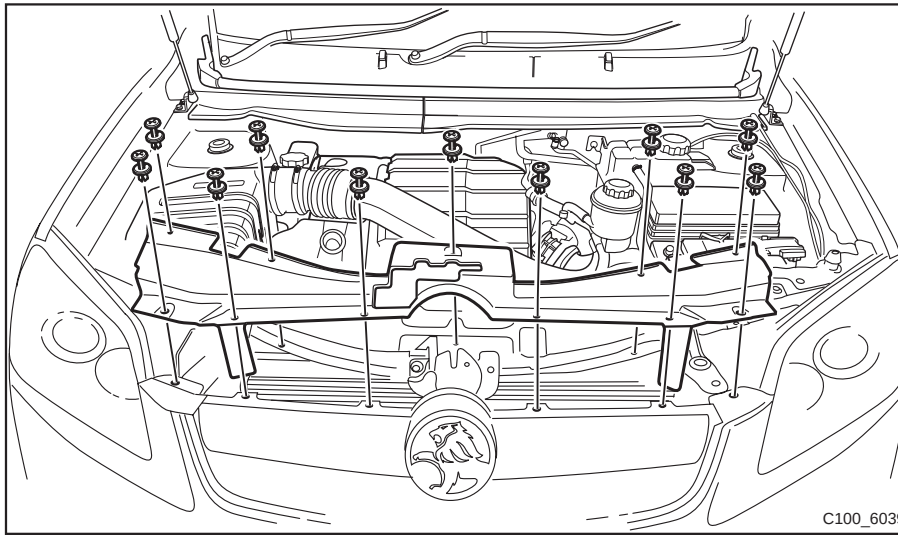
Bulbs to be changed by your Holden Dealer

- Vanity mirror lamp*,
- Ignition switch lamp,
- Exterior mirror lamps*.

Front lamps

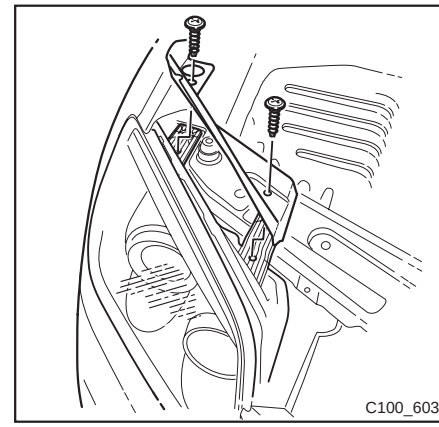
To gain access to the front park bulbs, front turn signal bulbs, high, low beam and front fog* bulbs:

1. Open the bonnet and remove the radiator cowl by unscrewing the 11 Phillips head screws about 3 mm, then place a flat-blade screwdriver under each of the five scrivets and gently pry them upwards. Remove the cowl.

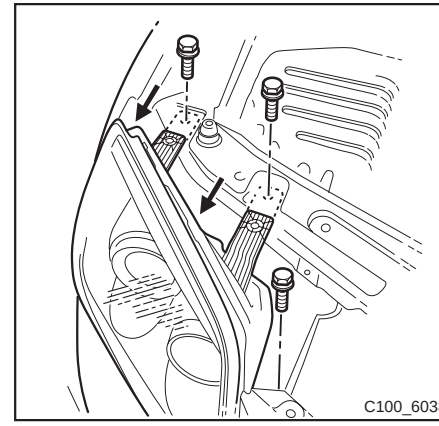


BULB REPLACEMENT cont.

2. Remove the 2 screws from the upper headlamp cover and remove.



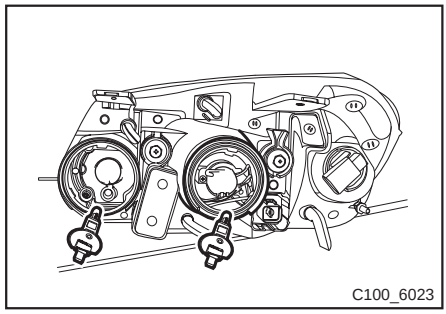
3. Remove the three bolts securing the headlamp and carefully remove the headlamp assembly.



BULB REPLACEMENT cont.

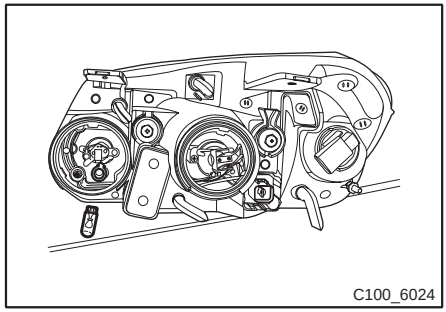
Head lamps (55 W)

1. Follow the steps described in section *Front lamps* previously in this chapter, to gain access to the lamp assembly.
2. Remove the dust cap covering the head lamp bulb.
3. Disconnect the 2 headlamp connectors by pushing on the thumb tabs.
4. Remove the dust cap covering the head lamp bulb.
5. Remove the wiring connector from the back of the bulb.
6. Release the spring retaining the bulb.
7. Remove the bulb and replace.
8. Install the wiring harness connector and dust cap (ensuring the rubber seal is in place).
9. Install components removed in step 1. Refer to *Front lamps* previously in this chapter.
10. Check lamp operation.


C100_6023

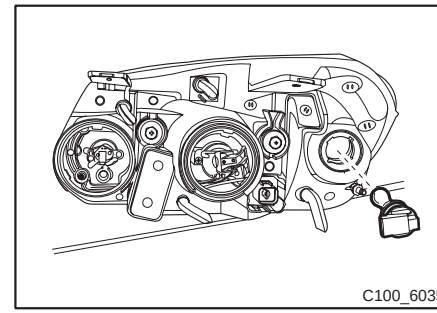
Parking lamps (5 W)

1. Follow the steps described in section *Front lamps* previously in this chapter, to gain access to the lamp assembly.
2. Remove the dust cap covering the parking lamp bulb.
3. Pull out the parking lamp bulb assembly located next to the head lamp bulb.
4. Pull the bulb straight out of the bulb holder.
5. Install the wiring harness connector and dust cap (ensuring the rubber seal is in place).
6. Install components removed in step 1. Refer to *Front lamps* previously in this chapter.
7. Check lamp operation.


C100_6024

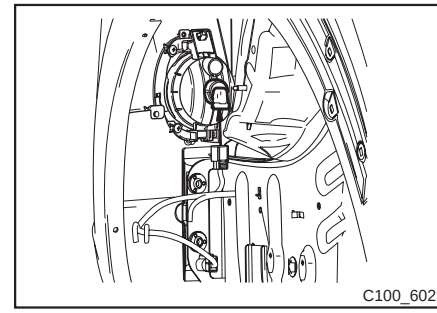
BULB REPLACEMENT cont.

Front turn signal lamps (21 W)


C100_6035

1. Follow the steps described in section *Front lamps* previously in this chapter, to gain access to the lamp assembly.
2. Rotate the front turn signal bulb holder anticlockwise and pull it out of the lamp housing.
3. Press the bulb inward and rotate it anticlockwise to remove it from the bulb holder.
4. Install a new bulb into the holder by pressing it in and rotating it clockwise (ensure the same colour bulb is used).
5. Install the holder into the lamp housing by rotating it clockwise.
6. Install the wiring harness connector and dust cap (ensuring the rubber seal is in place).
7. Install components removed in step 1. Refer to *Front lamps* previously in this chapter.
8. Check lamp operation.

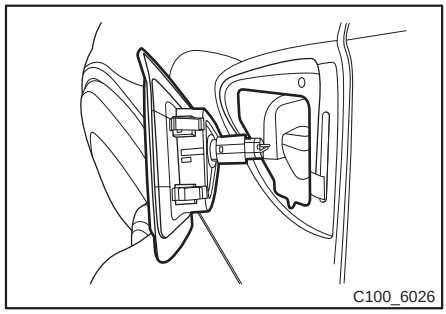
Front fog lamps (35 W)*


C100_6025

1. Follow the steps described in section *Front lamps* previously in this chapter, to gain access to the lamp assembly.
2. Disconnect the wiring harness connector from the bulb.
3. Remove the front fog lamp bulb holder from the front fog lamp assembly by rotating it clockwise.
4. Install the replacement bulb.
5. Install the wiring harness connector and dust cap (ensuring the rubber seal is in place).
6. Install components removed in step 1. Refer to *Front lamps* previously in this chapter.
7. Check lamp operation.

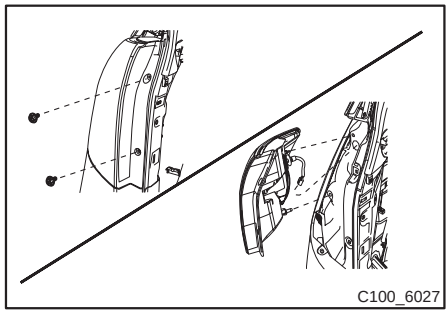
BULB REPLACEMENT cont.

Side turn signal lamps (5 W)*


C100_6026

1. Using a flat-blade screwdriver, carefully pry the side turn signal lamp assembly away from the fender.
2. Rotate the bulb holder counter-clockwise.
3. Remove the bulb from the lamp housing by pulling the bulb straight out of the holder.
4. Push the replacement bulb into the bulb holder and rotate the bulb clockwise.
5. Push the side turn signal lamp assembly back into its original position ensuring it is securely fastened.
6. Check lamp operation.

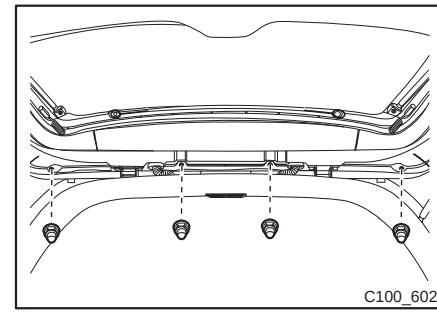
Rear tail lamps


C100_6027

1. Open the tailgate.
2. Remove the two screws and the lamp assembly.
3. Remove the bulb holder by rotating it anticlockwise.
4. Push the bulb inward and rotate it anticlockwise.
5. Insert the replacement bulb into the holder and rotate it clockwise.
6. Replace the bulb holder into the lamp housing and rotate it clockwise to secure.
7. Refit the lamp assembly into the vehicle securing with the two screws.
   - Reverse (16 W).
   - Stop/tail (21/5 W).
   - Rear fog (21 W).
   - Rear turn signal (21 W).

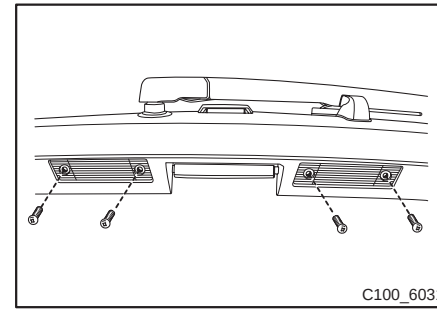
BULB REPLACEMENT cont.

High mount stop lamp (5 W)



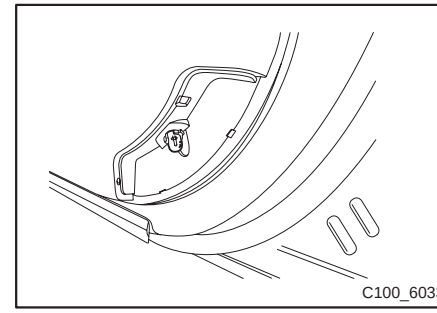
1. Open the tailgate.
2. Remove the four nuts from the tailgate cover assembly.
3. Remove the bulb holder.
4. Pull the bulb straight out of the bulb holder and install the replacement bulb.
5. Reinstall the bulb holder and the tailgate cover assembly, secure with the four nuts.

License plate lamps (5 W)



1. Remove the two screws and the lamp lens.
2. Rotate the bulb holder anticlockwise and remove it from the housing.
3. Pull the bulb straight out of the bulb holder and install the replacement bulb.
4. Rotate the bulb holder clockwise to reinstall it into the lamp housing.
5. Refit the lamp lens, securing with the two screws.

Front door step lamp (5 W)

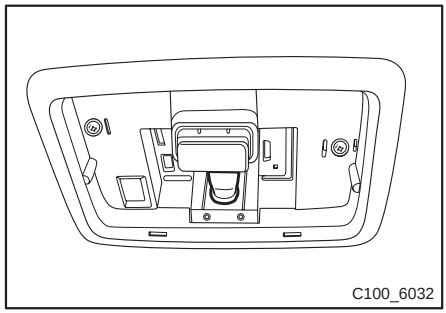


1. Using a flat-blade screwdriver, carefully pry the lamp lens away from the front door trim.
2. Pull the bulb straight out of the bulb holder and install the replacement bulb.
3. Refit the lamp lens ensuring it is securely fastened.

BULB REPLACEMENT cont.

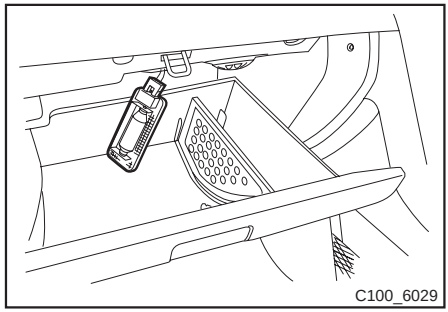
Interior and map lamps (10 W)

1. Using a flat-blade screwdriver, carefully pry the lamp lens away from the housing.
2. Remove the bulb and install the replacement.
3. Refit the lamp lens.


C100_6032

Glovebox lamp (10 W)

1. Open the glovebox.
2. Using a flat-blade screwdriver, carefully unclip the lamp assembly away from the top of the glovebox.
3. Remove the bulb and install the replacement.
4. Refit the lamp assembly.


C100_6029

NOTES

CHAPTER 7

Weekly checks

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*The asterisk signifies equipment options not in all vehicles, model variants, engine options, optional equipment and Genuine Holden Accessories (and Parts).

EXTERIOR CHECKS

As well as taking your vehicle to be serviced (refer to the Servicing/warranty booklet) there are a few simple, weekly checks the owner (or nominee) is recommended to make. These are shown on the following pages.

WARNING

- The engine cooling fan can start working unexpectedly, even when the engine is not running. To avoid injury from the fan, ensure the ignition switch is in the LOCK position, so the fan can not start operating.
- Electronic ignition systems have high ignition voltage. Do not touch the ignition system; this could be highly dangerous.

The following checks should also be regularly done to ensure safety of your vehicle:

- All exterior lamps are working and their appropriate interior indicators illuminate.
- Mirrors and glass are clean and not scratched.
- Aim of water on the windscreen is satisfactory.
- Condition of the wipers is satisfactory.
- The demister operates.
- The horn works.
- Condition and operation of all the seat belts. Check if the buckles are clean and operating correctly. Remember that seat belts must never be worn twisted.

EXTERIOR CHECKS CONT.

TYRES

Tyre air pressure

Weekly checking of the air pressure of your tyres (including the spare) ensures your safety, as well as reduces fuel consumption and increases the life of your tyres. See the tyre placard located on the pillar below the driver's door latch for the recommended tyre pressures.

For constant long distance or rough road driving, daily checking is recommended.

If the vehicle is heavily loaded, the recommended pressure for the tyres is increased. As the tyres are operating under greater load, the weekly air pressure check becomes even more important.

Tyre inflation pressure increases when the tyres have been driven more than 2 km. Therefore, the pressure should be checked when the tyres have been stationary for over three hours. If they must be checked immediately after driving, increase the pressure shown on the placard by 10 % relative to the cold tyre inflation pressure.

The inflation pressure in the tyres should be increased according to the load on the vehicle. Therefore, if the vehicle is loaded to half the maximum load shown on the compliance label, then the tyres should be inflated half way between the minimum and maximum pressures given on the tyre placard.

Always use a tyre pressure gauge to check the tyres inflation; simply looking at the tyres is not sufficient.

If the pressure is too low, this can result in considerable tyre warm-up and internal damage, leading to tread separation and even to tyre blowout at high speeds. If the pressure is too high, this can result in reduced traction, increased risk of tyre blowout and poor tyre wear.

Remember to replace any valve dust caps or extensions, as this stops dirt and moisture from fouling the valves. When checking the tyre air pressure, take a look at the condition of the tyre tread and inspect for stones or abnormal wear.

Tyre condition and rim condition

Driving over sharp edges can lead to hidden tyre damage and rim damage, which can lead to tyre blowout. Drive over edges slowly and at right angles, if possible.

When parking, ensure the tyres are not pressed against the edge of the curb.

Check the tyres regularly for damage, stones, punctures, cuts, cracks, bulges etc. Check the rims for damage. Consult a Holden Dealer, if in doubt.

EXTERIOR CHECKS CONT.

Alignment and balance

Improper wheel alignment can cause the tyres to wear faster and to wear unevenly. It can also cause the vehicle to pull to the left or right.

Out-of-balance wheels and tyres can cause annoying vibration and uneven tyre wear. If you suspect either of the above problems exist, have a wheel alignment and balance check carried out by your Holden Dealer.

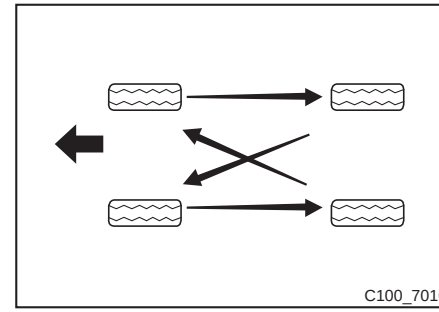
Tyre rotation

Front and rear tyres perform different jobs and can wear differently depending on the types of roads driven, your driving habits, wheel alignment, balance, tyre pressures, etc.

Check the tread depth regularly. If the front tyres have more wear than the rear tyres, have both front wheels rotated with the rear wheels so the tyres with the deeper tread are at the front.

Follow the diagram for the correct rotation pattern.

If the wheels are rotated it is recommended to check the balance at the same time.



EXTERIOR CHECKS CONT.

Replacement and repair

Replacing your factory fitted wheels and tyres with non standard wheels and tyres may affect your new vehicle warranty as well as your insurance policy. Refer to the tyre placard for tyre size and load rating. Using a different size or type of tyre may affect ride, handling, speedometer, vehicle ground clearance, tyre clearance or snow chain clearance.

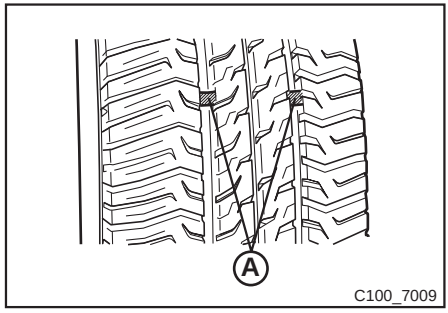
Take care when using tyres with heavy treads, including tyres made for better grip in the wet. At sustained high speeds, this type of tyre will run at higher temperatures than standard tyres and consequently should only be operated within the limits recommended by the manufacturer. Any doubts about the tyres on your vehicle should be referred to your Holden Dealer.

New tyres should be fitted in pairs to the front. If replacing only one tyre, it should be paired on the same axle with the least worn of the other three.

The tyres have tread wear indicators (A) which tell you when a tyre has 1.5 mm or less of tread left.

You should replace your tyres when:

- The tyres are worn to the point where the tread indicators appear, or the cord or fabric is showing. The tyres originally fitted to your vehicle have built-in tread indicators which show up when the tyres are worn.
- The tread or sidewall is cut, split, or cracked deep enough to expose the cord or fabric.
- The tyre has a bump or bulge in it, indicating some kind of internal damage.



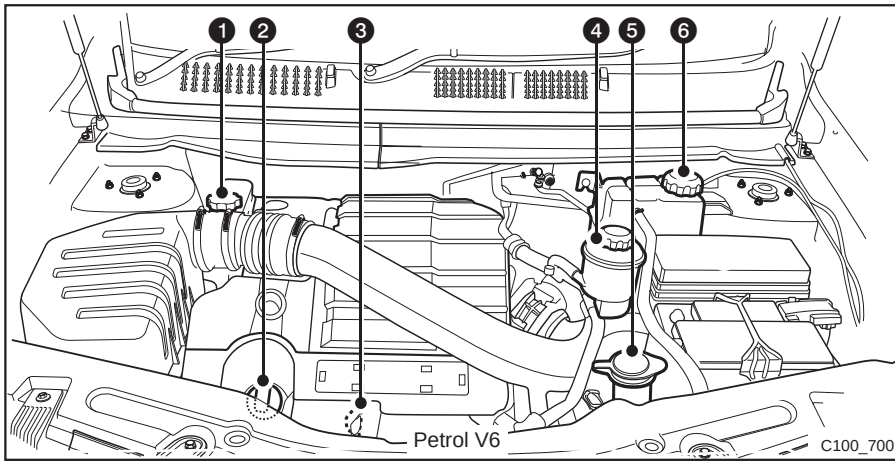
- The tyre has a puncture, cut or other damage which can not be repaired because of the size or location of the damage.

WARNING

- The use of tyres that are a different size or construction i.e. mud or snow tyres, may adversely affect the ESP® system.
- Do not attempt to drive on the flat tyre more than is necessary to stop safely. Driving even a short distance can damage the tyre and wheel beyond repair. Tyres which have been repaired or retreaded cannot be driven safely at high speeds. Therefore, their use is not recommended.

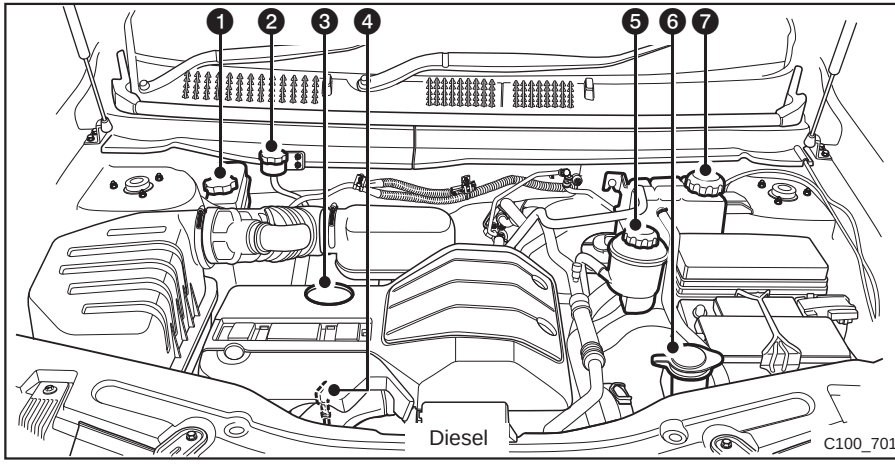
UNDER BONNET CHECKS cont.

Under bonnet layout – Petrol V6



1. Brake fluid reservoir.
2. Engine oil filler cap.
3. Engine oil level dipstick.
4. Power steering fluid reservoir.
5. Washer fluid reservoir.
6. Coolant reservoir.

Under bonnet layout – Diesel



1. Brake fluid reservoir.
2. Clutch fluid reservoir*.
3. Engine oil filler cap.
4. Engine oil level dipstick.
5. Power steering fluid reservoir.
6. Washer fluid reservoir.
7. Coolant reservoir.

UNDER BONNET CHECKS cont.

ENGINE OIL LEVEL – PETROL

Engine oil must be kept at correct levels to help ensure proper lubrication of the vehicle's engine. Check the oil level at regular intervals, such as when refuelling. If the oil pressure warning lamp comes on, you must check the oil level immediately, or risk causing damage to the engine. Refer to *Warning/reminder indications* in chapter 1A.

Check the engine oil level

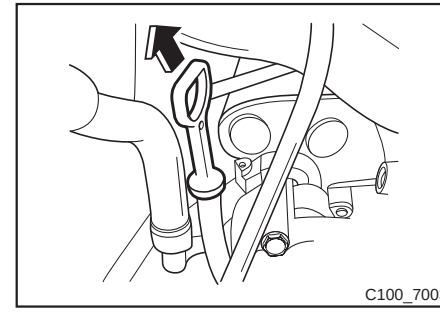
Check the oil level while the vehicle is parked on level ground, with the engine switched off and at normal operating temperature.

Before checking the oil level, wait a few minutes after switching the engine off, to allow the oil to settle.

1. Remove the oil dipstick from the oil level tube.
2. Wipe the dipstick clean.
3. Insert the dipstick back into the oil tube as far as it will go.
4. Wait for a few seconds before again removing the dipstick.

The oil level should be maintained between the marks, neither going above the upper mark nor under the lower mark.

Note Remember to insert the dipstick firmly after taking the reading.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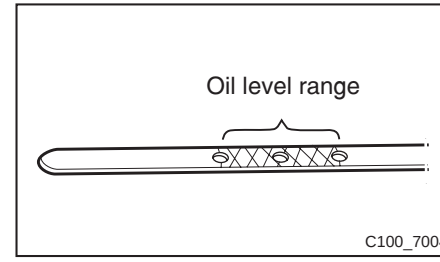
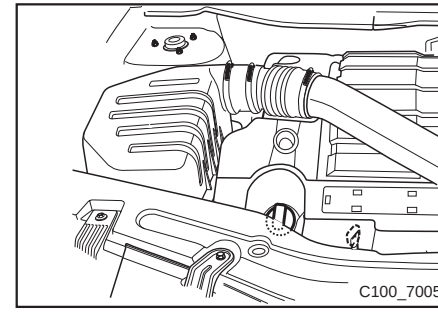


C100_7004

To add engine oil

Use the correct oil for your vehicle. Refer to *Specifications – petrol engines* in chapter 8.

1. Remove the engine oil cap.
2. Add the required amount of oil.
3. Wait a few minutes for the oil to settle, then check the oil level again. When the oil level is correct, replace the oil cap and dipstick, and clean up any spilt oil.


C100_7005

Note Non-detergent and other low quality oils are specifically not recommended. The use of break-in oil, tune up compounds, friction reducing compounds and other supplemental additives are not recommended. Their use will increase costs, may be detrimental to the operation of your car and may void your New Vehicle Warranty, to the extent that Holden considers the non-recommended fluid to have affected the specifications or quality of your vehicle.

UNDER BONNET CHECKS cont.

ENGINE OIL LEVEL – DIESEL

Engine oil must be kept at correct levels to help ensure proper lubrication of the vehicle's engine. Check the oil level at regular intervals, such as when refuelling. If the oil pressure warning lamp comes on, you must check the oil level immediately, or risk causing damage to the engine. Refer to *Warning/reminder indications* in chapter 1A.

Check the engine oil level

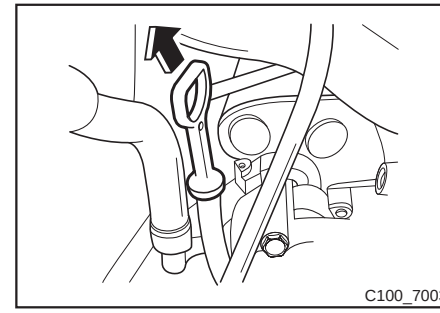
Check the oil level while the vehicle is parked on level ground, with the engine switched off and at normal operating temperature.

Before checking the oil level, wait a few minutes after switching the engine off, to allow the oil to settle.

1. Remove the oil dipstick from the oil level tube.
2. Wipe the dipstick clean.
3. Insert the dipstick back into the oil tube as far as it will go.
4. Wait for a few seconds before again removing the dipstick.

The oil level should be maintained between the marks, neither going above the upper mark nor under the lower mark.

Note Remember to insert the dipstick firmly after taking the reading.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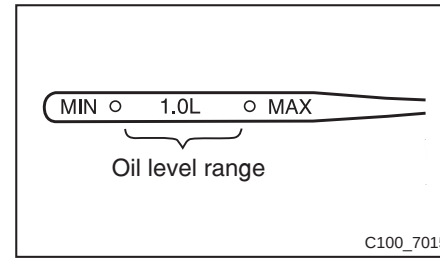
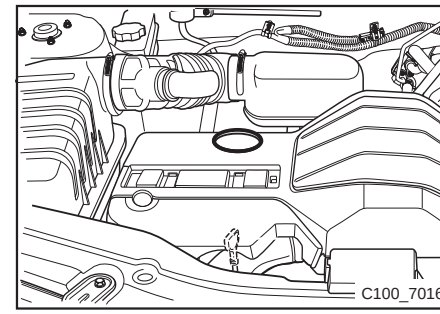


C100_7015

To add engine oil

Use the correct oil for your vehicle. Refer to *Specifications – diesel engines* in chapter 8.

1. Remove the engine oil cap.
2. Add the required amount of oil.
3. Wait a few minutes for the oil to settle, then check the oil level again. When the oil level is correct, replace the oil cap and dipstick, and clean up any spilt oil.


C100_7016

Note Non-detergent and other low quality oils are specifically not recommended. The use of break-in oil, tune up compounds, friction reducing compounds and other supplemental additives are not recommended. Their use will increase costs, may be detrimental to the operation of your car and may void your New Vehicle Warranty, to the extent that Holden considers the non-recommended fluid to have affected the specifications or quality of your vehicle.

UNDER BONNET CHECKS cont.

ENGINE OIL CONSUMPTION

Every internal combustion engine uses a certain amount of oil, especially when running-in. The engine is dependant on oil for lubricating the cylinder walls, pistons, rings and valve stems. A thin film of oil is left on the cylinder walls, some of which is carried into the combustion chamber and burnt during the combustion process. This also applies to the film of oil on the valve stems which is drawn into the combustion chamber and burnt.

There are several other factors that contribute to the rate of oil consumption in your engine: worn pistons, rings, valve stems and guides; the way in which the vehicle is operated; the quality and grade of oil; the oil level, and dilution of the oil.

Operation of the vehicle

High speed driving and heavy towing increases engine temperature, which lowers oil viscosity, causing more oil to reach the combustion chamber and get burnt away.

Quality and grade of oil

Oil viscosity is a significant factor in oil consumption. If you use an oil which is too thin (low viscosity) your oil consumption will increase. Use only the recommended grades of oil. Refer to *Specifications* in chapter 8.

Oil level

Maintaining a proper oil level is also an important factor in controlling oil consumption. An over full engine will splash oil onto the cylinder walls in quantities greater than the piston rings can control. This excess oil will be drawn into the combustion chamber and burnt, or may result in aeration of oil in the sump causing damage to the engine.

Dilution

Probably the most prevalent complaint of oil consumption comes from the driver whose vehicle is frequently driven at below normal operating temperatures. The oil becomes diluted by fuel and moisture which settles in the oil pan and may even raise the oil level creating a false reading on the oil level dipstick. For example, in a vehicle that has accumulated 1,500 km of short distance or intermittent city operation and has consumed a normal amount of oil, the level may not have dropped from the full mark, due to dilution. If this vehicle is driven for some distance at highway speeds on a warm day, the dilution elements evaporate, lowering the oil level and the motorist assumes the oil lost has been consumed in the highway operation.

If, after taking into account the above factors, you are still concerned that your engine has excessive oil consumption then you should discuss the situation with a Holden Dealer. Remember that an engine's oil consumption should not be judged until it has run at least 10,000 km.

UNDER BONNET CHECKS cont.

Automatic transmission* fluid level

The fluid level for automatic transmission will be checked for you when your vehicle is taken to your Holden Dealer for servicing. Refer to the Service/warranty booklet.

Note The automatic transmission fluid level does not require checking by the driver in between these scheduled services.

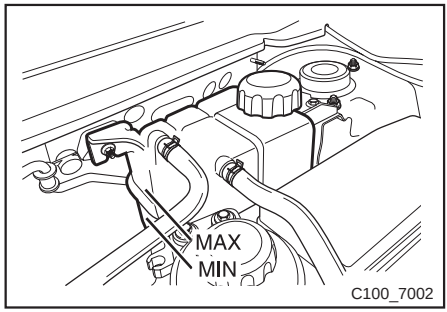
UNDER BONNET CHECKS cont.

ENGINE COOLANT LEVEL

To check engine coolant level

The level of the coolant should be checked weekly. This is simply a matter of looking at the level in the plastic container, called the coolant reservoir.

Check the level of the coolant and replenish the coolant reservoir as necessary. When the engine is cool, if the level of coolant in the reservoir is found to be lower than the **MIN** line, check the cooling system for leaks, then replenish to bring the level up to the **MAX** line.



WARNING

- Do not over fill the coolant reservoir.
- Only use specified coolant, refer to *Specifications* in chapter 8. Do not mix different coolants as this may damage the engine cooling system.
- Remove the coolant reservoir filler cap only.
- Always check the coolant level when the engine is cold. Steam and scalding liquids from a hot cooling system can blow out and cause serious burns.
- Do not spill coolant on the vehicle's exterior surfaces. It can damage the paintwork. If you do, wash it off immediately.

To add engine coolant

If the coolant reservoir requires topping up, first pre-mix a solution of 50 % coolant (refer to *Specifications* in chapter 8) and 50 % water.

Ensure the ignition is switched off.

Undo the cap on the top of the coolant reservoir, add the pre-mixed solution and secure the cap.

Failure to use the coolant meeting Holden's specification or maintaining the specified concentration may result in voiding your warranty.

In emergency situations, plain water may be used temporarily until the correct coolant is obtained as soon as possible from the nearest Holden Dealer.

The specified coolant works in three ways: it contains special corrosion inhibitors, it helps the cooling system in hot weather by increasing the boiling point and it protects against freezing down to -30 °C, provided the correct concentration is maintained.

If you regularly have to top up the cooling system you should contact your Holden Dealer.

WARNING

Corrosion inhibitors and antifreeze fluids are poisonous. Use extreme care when handling. If swallowed seek medical attention.

If the engine overheats, refer to *Engine overheating* in chapter 6.

UNDER BONNET CHECKS cont.

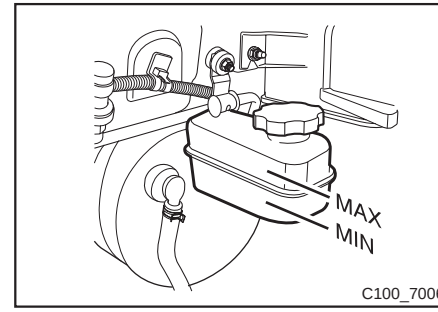
BRAKE FLUID

WARNING
Do not let brake fluid contact your skin or eyes. If you do get it in your eyes or on your skin, wash the affected skin thoroughly with soap and water, or flush eyes immediately with water and seek medical attention.

Do not spill brake fluid on the vehicle's exterior surfaces. It can damage the paintwork. If you do, wash it off immediately.

Brake fluid level

Check the brake fluid level in the brake fluid reservoir weekly.



Checking the brake fluid level

The fluid level is visible through the brake fluid reservoir. Refer to *Under bonnet layout* previously in this chapter for the brake fluid reservoir location.

Maintain the level between the **MIN** and **MAX** markings.

If the fluid is between these levels, do not remove the reservoir cap, as brake fluid exposed to the atmosphere will quickly absorb moisture.

Adding brake fluid

1. Ensure that the ignition is switched off.
2. Wipe the sides of the cap clean and turn anticlockwise to remove.
3. Top up with heavy duty brake fluid which meets Holden specifications. Refer to *Specifications* in chapter 8 for the correct specification.

WARNING
Use only new brake fluid. Use of old, used or inferior brake fluid may endanger the functioning of the brake system.

4. Secure the cap and clean up any spilt fluid.

   Note If the brake fluid reservoir requires constant topping up it could indicate that a fault exists. Contact your Holden Dealer immediately.

UNDER BONNET CHECKS cont.

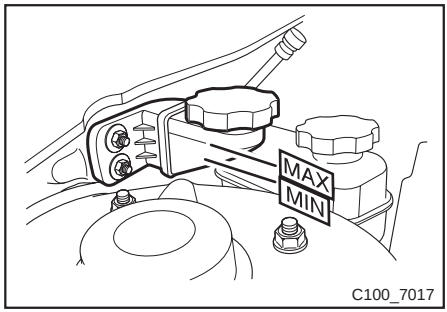
CLUTCH FLUID*

WARNING
Do not let brake fluid contact your skin or eyes. If you do get it in your eyes or on your skin, wash the affected skin thoroughly with soap and water, or flush eyes immediately with water and seek medical attention.

Do not spill brake fluid on the vehicle's exterior surfaces. It can damage the paintwork. If you do, wash it off immediately.

Clutch fluid level

Check the clutch fluid level in the clutch fluid reservoir weekly.



Checking the clutch fluid level

The fluid level is visible through the clutch fluid reservoir. Refer to *Under bonnet layout* previously in this chapter for clutch fluid reservoir location.

Maintain the level between the **MIN** and **MAX** markings.

If the fluid is between these levels, do not remove the reservoir cap, as brake fluid exposed to the atmosphere will quickly absorb moisture.

Adding clutch fluid

1. Ensure that the ignition is switched off.
2. Wipe the sides of the cap clean and turn anticlockwise to remove.
3. Top up with heavy duty clutch fluid which meets Holden specifications. Refer to *Specifications* in chapter 8 for the correct specification.

WARNING
Use only new brake fluid. Use of old, used or inferior clutch fluid may endanger the functioning of the clutch system.

4. Secure the cap and clean up any spilt fluid.

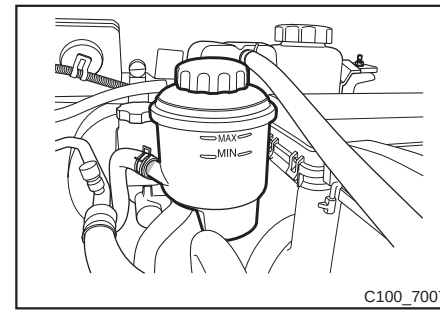
   Note If the clutch fluid reservoir requires constant topping up it could indicate that a fault exists. Contact your Holden Dealer immediately.

UNDER BONNET CHECKS cont.

POWER STEERING

Note Driving your vehicle without the proper amount of power steering fluid can result in system damage requiring costly repair.

Power steering fluid level



The power steering fluid level should be checked with the ignition switched off.

Check the fluid in the reservoir. The level should be between the **MIN** and **MAX** marks.

If the fluid is below the **MIN** mark, you should add fluid.

To add power steering fluid, do the following:

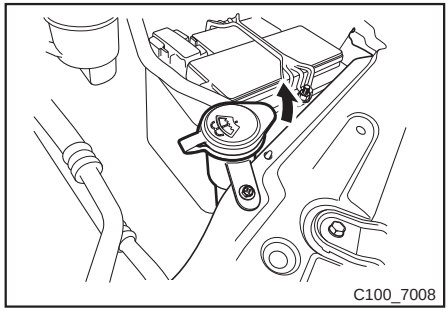
1. Switch off the ignition.
2. Wipe the cap and the top of the reservoir clean.
3. Remove the cap.
4. Add only enough fluid to bring the level up to the **MAX** mark. Do not overfill.
5. Replace the cap tightly.
6. Clean up any spilt fluid.

   Refer to *Specifications* in chapter 8, for power steering fluid specifications.

   Note If the power steering fluid reservoir requires constant topping up it could indicate that a fault exists. Contact your Holden Dealer immediately.

UNDER BONNET CHECKS cont.

WASHER FLUID


C100_7008

Washer fluid level

As washer fluid is regularly used, the level in the washer fluid reservoir should be checked and topped up weekly.

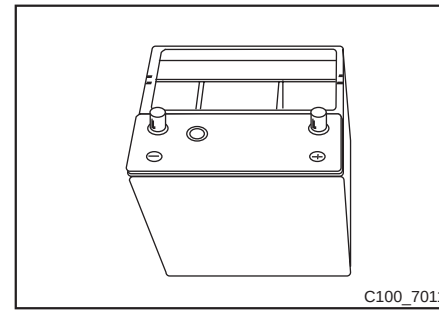
For a crystal clear windscreen, use the correct amount of windscreen washer additive. Refer to your Holden Dealer.

Note Do not use ordinary soap or detergent as these not only froth up but would also damage the wiper rubbers.

Ensure the cap is secured.

BATTERY

Battery maintenance



Your vehicle is fitted with a maintenance free battery, which means the fluid level does not need to be checked.

To extend the life of your battery, do the following:

- Keep the battery mounted securely.
- Keep the top of the battery dry and clean.
- Keep the terminals and connections clean, tight and coated with petroleum jelly or terminal grease.
- Immediately rinse off any spilled electrolyte using a solution of water and baking soda.
- If the vehicle is not going to be driven for an extended period of time, disconnect the cable from the negative (-) terminal of the battery to prevent discharge, and charge the battery every six weeks.

WARNING

- Batteries emit an explosive gas mixture which may be ignited by sparks or naked flames. You should therefore keep sparks and flames away from the battery at all times. Never smoke near a battery.
- Batteries contain sulphuric acid. If acid contacts skin or clothing, flush immediately with a lot of water. In case of eye contact, flush with a lot of water and seek medical assistance immediately.
- Battery acid also damages paint and fabrics. To minimise damage, wash off immediately.
- Take care with all metal objects and tools including items you may wear (e.g. jewellery, ring and metal watch bands) near battery terminals. Metal objects that touch battery terminals can cause sparks and serious heat burns to the user or wearer.
- Never disconnect the battery when the engine is running.
- Always connect the red cable to the positive (+) battery terminal and the black cable to the negative (-) battery terminal. Connecting the battery cables to the wrong terminals can result in injury and damage to the vehicle.
- Wear eye protection such as safety glasses and avoid leaning over the battery.

CHAPTER 8

Specifications

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Specifications – diesel engines 8-3
General specifications 8-4
Identification labels.....8-5

*The asterisk signifies equipment options not in all vehicles, model variants, engine options, optional equipment and Genuine Holden Accessories (and Parts).

SPECIFICATIONS PETROL ENGINES

Engine type	**3.2 litre DOHC V6**
Piston displacement	3195 cc
Power kW@ rpm	Refer to: holden.com.au
Torque Nm@ rpm	Refer to: holden.com.au
Oil specification	SAE 5W/30 or SAE 10W/30 API SL/SM ILSAC GF3/GF4 oil
Refill oil capacity (including filter)	7.4 Litres
Fuel tank capacity	65 Litres
Coolant capacity	10.0 Litres
Coolant specification	50% clean fresh water and 50% Dexcool® anti-freeze coolant, conforming to specification number GM6277M
Brake and clutch fluid	Hydraulic Brake Fluid SAE J1704 DOT 4 Grade
Power steering fluid	Dexron® III
Battery specification	12 volts, 70 amp hours
Battery for remote control	CR 20 32

SPECIFICATIONS DIESEL ENGINES

Engine type	**2.0 litre SOHC L4**
Piston displacement	1991 cc
Power kW@ rpm	Refer to: holden.com.au
Torque Nm@ rpm	Refer to: holden.com.au
Oil specification	0W-40 ACEA C3 or 5W-40 ACEA C3
Refill oil capacity (including filter)	6.2 Litres
Fuel tank capacity	65 Litres
Coolant capacity	9.0 Litres
Coolant specification	50% clean fresh water and 50% Dexcool® anti-freeze coolant, conforming to specification number GM6277M
Brake and clutch fluid	Hydraulic Brake Fluid SAE J1704 DOT 4 Grade
Power steering fluid	Dexron® III
Battery specification	12 volts, 90 amp hours
Battery for remote control	CR 20 32

GENERAL SPECIFICATIONS

Transmission

Transmission	5 speed automatic	5 speed manual
Transmission fluid type	Esso JWS 3309 or conforming to Holden spec. HN2414	SAE 75W/90 GL5

Drivetrain

Rear differential*	Synthetic Hypoid 75W/90 GL5
Power transfer unit*	Synthetic Hypoid 75W/90 GL5

Dimensions

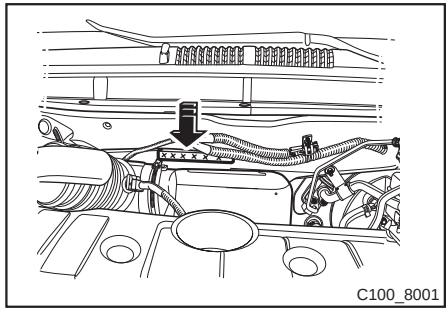
Overall length	4,637 mm
Overall width (excluding mirrors)	1,849 mm
Overall height, at kerb weight	1,720 mm
Front track	1,562 mm
Rear track	1,572 mm
Wheel base	2,707 mm

IDENTIFICATION LABELS

Vehicle identification number (VIN)

This is the legal identifier for your vehicle, and is used for the identification of spare parts.

The vehicle identification number is located inside the engine bay, on the bulkhead.



Breakdown of vehicle identification number (VIN)

The Vehicle identification number is broken down the following way:

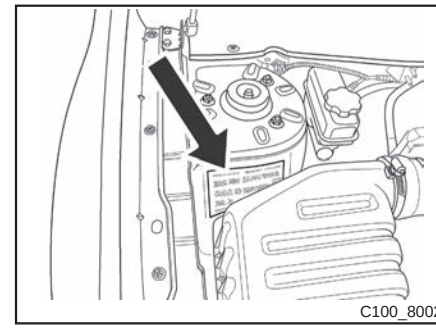
K	L	3	C	D	2	6	G	J	9	B	1	2	3	4	5	6

- Sequential production number
- Plant location: B = Bupyung, K = Kansun
- Model year code: 8 = 2008, 9 = 2009, etc
- Purpose: E = Export, J = Euro 2005
- Engine type: G = 3.2 L DOHC MPFI HFV6, R = 2.0 L SOHC Diesel L4
- Body style: 26 = All purpose window-4 door (liftgate)
- Transmission: G = AWD (all wheel drive) manual transmission, D = AWD (all wheel drive) automatic transmission, F = FWD (front wheel drive) manual transmission, A = FWD (front wheel drive) automatic transmission
- Car line: C = Captiva
- Manufacturer identifier: K = Asia, L = Korea, 3 = Holden

IDENTIFICATION LABELS cont.

Compliance label

The compliance label is located in the engine bay at the front of the driver's side suspension tower.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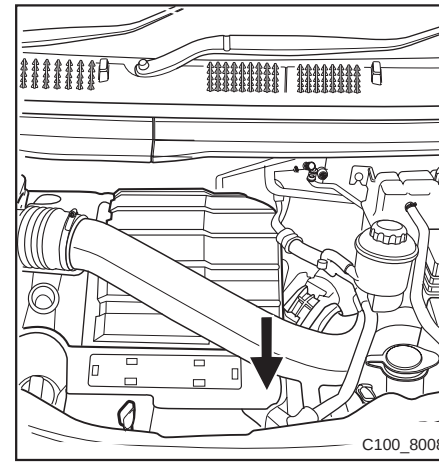
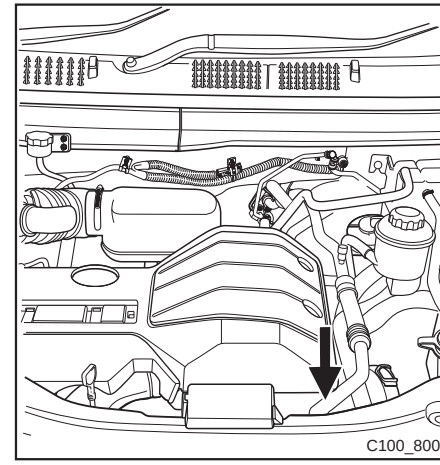
Engine number petrol engine

Individual identification numbers are stamped onto the engine block under the exhaust manifold, toward the passenger's side.


C100_8008

Engine number diesel engine

Individual identification numbers are stamped onto the engine block under the inlet manifold, toward the passenger's side.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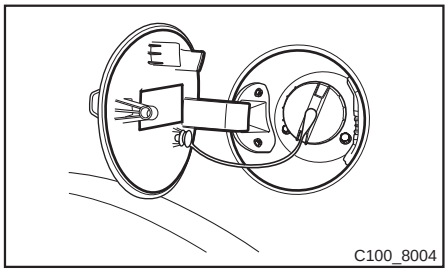
IDENTIFICATION LABELS cont.

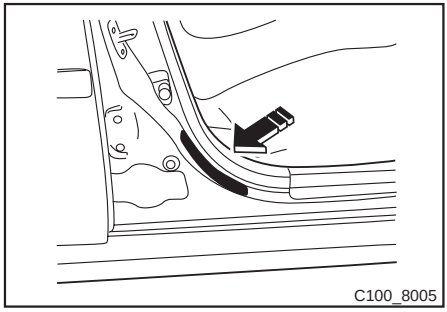
Fuel label

The fuel label is located on the inside of the fuel filler door.



Tyre placard

The tyre placard is found on the lower part of the ‘B’ pillar (driver’s door opening).



NOTES

CHAPTER 9

Tow and load

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*The asterisk signifies equipment options not in all vehicles, model variants, engine options, optional equipment and Genuine Holden Accessories (and Parts).

LOADING THE VEHICLE

Maximum vehicle payloads

Overloading is a safety hazard and could also shorten the life of your vehicle. The typical recommended carrying capacity of the vehicle is shown in the table below.

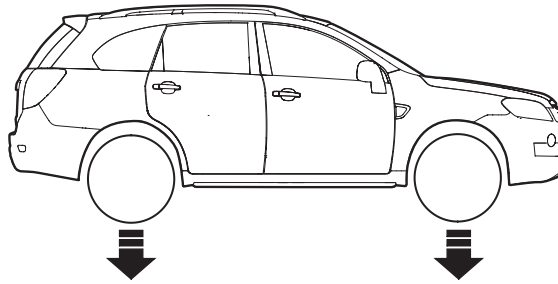
Do not exceed the maximum axle loads shown below in the diagram, including the weight of any options or accessories fitted to the vehicle.

Remember to take the roof load into account when determining the rear axle load.

If unsure, the vehicle should be weighed at a weighbridge.

Occupants (at an average of 68 kg each)	Luggage (kg)	Total load (kg)
5	68	408
7	95	571

Maximum front and rear axle loads



Rear axle load (kg)	Front axle load (kg)
1,330	1,175

Notes on loading the vehicle

- Place heavy objects in the rear luggage compartment as far forward as possible against the rear seat backrests. When stacking objects, place the heavier objects at the bottom. Unsecured objects in the rear luggage compartment could be thrown forward with great force during heavy braking or in an accident.
- Heavy objects can slip when the vehicle is braking heavily or driven around a bend, and the handling of the vehicle may change.
- Do not place objects in front of the rear window or on the dashboard above the instrument panel. They are reflected in the glass, obstruct the driver's vision and may be thrown through the vehicle in the event of heavy braking.
- Driving with a roof load increases the sensitivity of the vehicle to cross winds and affects vehicle handling owing to the higher centre of gravity of the vehicle.
- Do not place objects in the area where the airbags inflate. Objects can cause injury if the airbags are deployed.

LOADING THE VEHICLE cont.

WARNING
Loaded roof rails or cross bars alter the handling of the vehicle due to a change in the centre of gravity. Do not drive at high speeds, avoid hard braking, abrupt swerving or sharp steering.

Always drive carefully when:

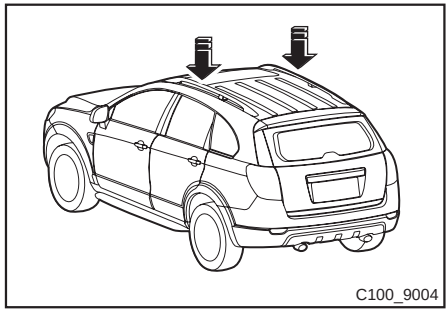
- Cornering or
- driving in cross winds.

Roof rails*

The roof rails can be used to carry additional cargo, or bulky items which are better carried outside the vehicle rather than inside.

The roof rails are attached to the roof of the vehicle.

Ensure the load is evenly distributed over the rails and secured tightly with straps so that it can not slip.The roof surface must not be subjected to any load.


C100_9004

Roof cross bars*

Distribute the load evenly and secure tightly with straps so that it can not slip. For occupant safety, and to avoid damaging the vehicle's roof, refer to your Holden Dealer for the approved cross bars system for your vehicle.

WARNING
The load, including the weight of the roof cross bars or roof rails, must not exceed:

- 50 kg for the SX.
- 75 kg for the CX and LX.

Distribute the load evenly.

Note Remember the weight of the roof cross bars or roof rails and their load must be included when calculating the total load.

Carrying portable gas cylinders in vehicles

WARNING
Gas cylinders can leak, creating a risk of fire or explosion. As a precaution, ensure adequate ventilation when carrying gas cylinders. They must be restrained from rolling around, and where possible, placed in the load area of the vehicle. It is recommended that if gas cylinders are frequently transported, a purpose built carrying compartment be used. Transportation of gas cylinders is regulated by legislation in some States.

TOWING

TRAILERS

The word 'Trailer' is used throughout this section and is intended to include all types of towed vehicles, such as a caravan, boat trailer or any other special purpose trailer.

TOWING

The vehicle is designed primarily as a passenger vehicle, so handling, durability and economy may be affected by towing a trailer.

Refer to the table further on in this chapter for the mandatory equipment required for the weight you are towing. Your Holden Dealer will help supply and install towing equipment to suit your requirements.

OVERLOADING

Never exceed the loads given for the towing equipment fitted to the vehicle. For your safety and the vehicle's durability, all mandatory equipment must be fitted. Otherwise you may void the New Vehicle Warranty, to the extent that Holden considers the overloading or missing equipment to have affected the specifications or quality of the vehicle.

MAXIMUM TOWING CAPACITIES (kg) – BRAKED TRAILER

Engine	**Diesel**		**V6 Petrol**
Transmission	**Manual**	**Automatic**	**Automatic**
	2,000	1,700	2,000
Note The maximum unbraked towing capacity for all vehicles is 750 kg.			

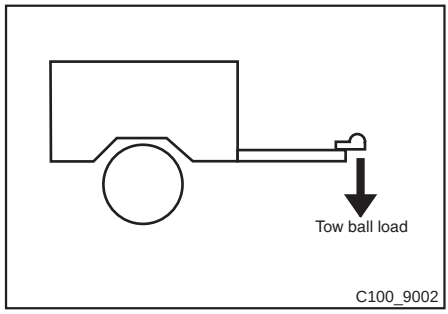
WARNING
Holden towing equipment is recommended where it is available. Where it is not available, no recommendation is made as to the make of equipment to be used. Holden will not accept liability for defects occurring in towing equipment not marketed by Holden or for defects in the vehicle arising from the use of such equipment or for loss or injury caused by use of such equipment. The use of such equipment may void your New Vehicle Warranty to the extent that Holden considers the overloading or missing equipment to have affected the specifications or quality of your vehicle. It is not advisable to mix and match different brands of towing equipment, as equipment is usually designed as an integrated package.

Towing with Electronic Stability Program (ESP®)

When towing with a vehicle fitted with ESP®, you may hear noise from the ESP® modulator when it is working. The ESP® is reacting to the vehicle movement caused by the trailer, which mainly occurs during cornering. This is considered normal when towing heavier trailers.

TOWING cont.

Recommended procedure for attaching a trailer



When a trailer is hitched to the vehicle, it places a weight on the tow bar. This weight is called the 'tow ball load'.

If the tow ball load is too light or too heavy, the steering and handling of the vehicle may be affected.

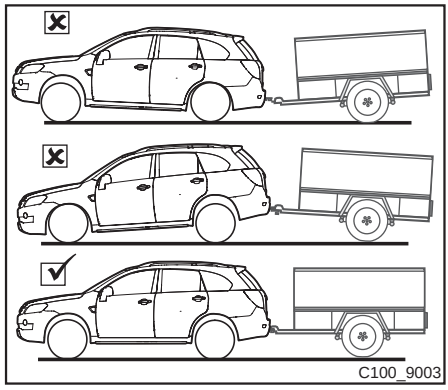
As a general guideline, for single axle trailers, the ball load should be approximately 10 % of the loaded trailer mass. For heavy trailers with more than one axle, the ball load should be in the range of 5 % - 10 % of the loaded trailer mass.

Note If the tow ball load exceeds 158 kg refer to mandatory equipment in the *Towing equipment* table further on in this chapter.

The tow ball load can be adjusted by correctly packing the contents of the trailer. For example, by moving items forwards or backwards within the trailer so as to change the balance of the trailer.

Check the tow ball load before coupling the trailer to the towing vehicle.

If the attitude of the vehicle is compromised, adjust the vehicle and trailer load within the specifications to improve the attitude. If the vehicles attitude cannot be corrected, use a load distribution hitch.



TOWING cont.

TOWING EQUIPMENT

Tow load	Tow ball load	Mandatory equipment
Up to 750 kg	Less than or equal to 158 kg.	Holden 2,000 kg rated tow bar.
		Holden trailer wiring harness.
Up to 750 kg	More than 158 kg.	Holden 2,000 kg rated tow bar.
		Holden trailer wiring harness.
		Load distribution hitch.
Between 750 kg and 2,000 kg	Less than or equal to 158 kg.	Holden 2,000 kg rated tow bar.
		Holden trailer wiring harness.
		Brakes on the trailer.
Between 750 kg and 2,000 kg	More than 158 kg.	Load distribution hitch.
		Holden 2,000 kg rated tow bar.
		Holden trailer wiring harness.
		Brakes on the trailer.

Note

1. A load distribution hitch transfers load to the vehicles front wheels aiding steering and brake performance.
2. At no time may the maximum towing capacity exceed the maximums specified. Refer to *Maximum towing capacity* previously in this chapter.
3. At no time may the total front or rear axle load exceed the maximums specified. Refer to *Loading the vehicle* previously in this chapter.

TOWING cont.

TOWING PRECAUTIONS

- When heavily loading your vehicle or when towing, your tyres should be inflated to the maximum recommended pressure. Refer to *Tyres* in chapter 7, for tyre placard and information about tyre pressures.

  Also, refer to *Driving precautions* in chapter 4, for driving information with increased loads.
- Ensure the load distribution hitch is correctly distributing the tow ball load. Refer to *Towing equipment* previously in this chapter.
- Tighten the tow ball retaining nut to 140 Nm (Newton Meters) and check the torque frequently.
- Vehicles handle differently when towing. It is a good idea to make a couple of short-distance trips with the trailer before setting off on a longer journey.
- Have your vehicle correctly maintained and serviced.
- Have the trailer maintained and serviced, with particular attention to the condition of the brakes, tyres, suspension, wheel bearings, lighting and the tow coupling.
- Use extended-arm rear view mirrors on both sides of the vehicle if necessary.
- Headlamps may need realignment after the loaded trailer has been hitched, particularly if a load distribution hitch is not used.
- Use a lower gear and the brakes, when descending steep hills.
- Do not use axle-mounted hitches as this will damage the vehicle.
- Ensure that no part of the tow bar (including the tongue or tow ball) obscures the vehicle's licence plate. If necessary, remove the tow bar tongue when it is not in use.
- If a tow bar is removed:

  Ensure to have any mounting holes in the underbody properly sealed to prevent the possible entry of exhaust fumes, dust and water.

Trailer brakes

- Trailer brakes are mandatory on trailers weighing 750 kg and over when loaded. The brakes on the trailer must be designed to cope with the braking requirements of the trailer under all towing conditions, without adversely affecting the brakes on the vehicle.
- Consult the appropriate regulatory body in your State or Territory for the legal requirements of trailer brakes.

Park Assist*

The Park Assist system will automatically deactivate when a trailer lighting plug is connected to the vehicle. It will automatically activate again when the plug is removed.

TOWING cont.

Fitting accessories (roo bars, driving lamps, insect screens, etc)

When fitting accessories, take care not to restrict airflow through the air conditioner condenser and the radiator, otherwise engine overheating and/or poor air conditioning performance may result.

The mass of all accessories must be considered when evaluating the vehicle's overall loaded condition.

Remember that roo bars may affect airbag operation. Refer to *Add on equipment* in chapter 4, for details.

Running in before towing

Holden recommends that you drive your new vehicle for at least 1,500 km before towing. If you must tow in the first 1,500 km of the vehicle's life, do not exceed 80 km/h.

The same applies if the vehicle is equipped with a new or reconditioned engine, transmission or axle.

Off road loading and towing (All Wheel Drive AWD vehicles)

Driving the vehicle off-road may induce higher loads than normal on-road driving. To reduce the risk of damage to your vehicle (and trailer) and to improve safety when operating off-road, reduce the vehicle speed and minimise the load being carried (or towed).

Vehicle maintenance

More frequent vehicle maintenance is required when using the vehicle for towing. Refer to the Service/warranty booklet in the vehicle's glovebox.

CHAPTER 10

Cleaning

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*The asterisk signifies equipment options not in all vehicles, model variants, engine options, optional equipment and Genuine Holden Accessories (and Parts).

INTERIOR CLEANING

WARNING
Many cleaners are toxic, flammable or may damage the interior. When cleaning the interior, avoid volatile cleaners such as acetone, lacquer thinners, enamel reducers, nail polish removers, or cleaners such as laundry soaps, bleaches or reducing agents. Never use carbon tetrachloride, petrol or naphtha for any cleaning purpose. Ensure the vehicle is well ventilated while using any cleaners and always follow the cleaning product manufacturer's recommendations. Water based cleaners, rather than solvent based cleaners, are recommended.

Steam cleaning of seats is not recommended.

Upholstery

Dust and dirt accumulate on upholstery and should be removed every few weeks, more often with constant driving. This can be done readily with a vacuum cleaner. Before attempting to remove spots and stains, it is necessary to determine:

- The type of fabric.
- The nature and age of the stain.
- The effect of the stain removal agent on the upholstery.

Remove stains as soon as possible. If a stain remains for any length of time it may oxidise or set, making removal very difficult, if not impossible.

Velour door trim

Marks on the velour fabric, which extends to the bottom of the door, can be cleaned off using mild, soapy water on a clean cloth, rubbed in the direction of the pile. When dry, use a soft brush to smooth the pile.

Vinyl

Vinyl fabrics are used for seating, headlinings and auxiliary trimming. Wipe over the surface with a dry cloth during the regular cleaning of the vehicle.

Should dirt accumulate and become embedded in the material pattern:

1. Use lukewarm water and soap, or a good quality velour fabric and vinyl cleaner, to work up thick suds on a piece of cheesecloth and apply to the surface. A soft bristle brush can be used to remove embedded dirt and stubborn stains.
2. Repeat using only a damp cloth and no soap.
3. Wipe dry with a soft cloth. The above cleaning instructions also apply to the rubber floor mats.

Cloth

To clean seats upholstered with cloth, observe the following instructions:

- Remove loose dirt and dust with a vacuum cleaner or soft brush.
- DO NOT use a whisk broom or a coarse hair brush.
- For normal soiling, sponge lightly with warm water containing a mild detergent. Rub the fabric lightly and, if necessary, sponge again to remove any stubborn stains. Soak up excess fluid with a dry cloth. A good quality velour fabric and vinyl cleaner may be used, but should be used sparingly.

INTERIOR CLEANING cont.

Carpet

Thoroughly brush or vacuum the carpet. In many instances the carpet may require no further cleaning. If the carpet is extremely soiled, thoroughly vacuum it to remove loose dirt then, using a good quality velour fabric and vinyl cleaner, clean a small area at a time. After each area is cleaned, remove as much of the cleaner as possible with a vacuum cleaner.

Secured carpet mats*: Retainers are provided to hold carpet mats in place. Use a screwdriver or similar (not the vehicle key) to undo the retainers when required. To replace, push the retainer on the back of the mat into the hole in the carpet and turn clockwise to secure.

Leather*

To remove surface soil and dirt from leather, clean regularly using a leather revitaliser. Apply using a lint free cloth and rub onto leather, do not saturate the leather with the cleaner and do not pour it directly onto the leather. Allow the leather to dry naturally. A mild detergent may be used as an alternative to a leather revitaliser.

For deeply embedded soil and dirt, use a leather cleaner. This should be applied using the same process as leather revitaliser. After using a leather cleaner/revitaliser apply a leather protector. A leather protector is designed to repel dirt and provides water resistance.

Note

- Clean and protect leather at least twice a year.
- Do not use synthetic cloths or brushes for cleaning the leather as this may damage the leather.
- Solvents may damage and/or discolour the leather and should not be used.
- The leather may shrink and harden if exposed to direct sunlight for extended periods. If possible park in the shade or cover the leather.
- Do not leave items on the leather that may melt and stick to leather, for example, plastic bags.

Seat belts

Clean seat belts only with a mild, non-abrasive soap and lukewarm water. After washing, be sure to thoroughly sponge the washing solution out of the belts.

WARNING
Do not bleach or dye seat belts as this may severely weaken them.

Interior glass

Clean interior glass of the vehicle using a good quality glass cleaner and a clean soft cloth. Take care when cleaning inside the rear window so as not to damage the rear window demister or radio antenna.

Never use abrasive cleaners on any vehicle glass, as they can cause scratches.

EXTERIOR CLEANING

Caring for paint

To help preserve that shiny new vehicle finish, pay special attention to correctly treating those conditions that can damage the paint.

- **Road bloom**: If, over a long period of time, oils, dirt, exhaust and other pollutants are allowed to build up, they may combine to affect the paint finish.
- **Etching**: Tree sap, bird droppings, salt water and other natural deposits can, if allowed to stay on the paint, leave an etching or scarring.
- **Pitting**: Tar spots and some industrial fallout can react chemically and may cause pitting to the surface of the paint.

Paint inspection

Inspect the vehicle regularly for scratch marks, cracks or damaged areas, all of which could develop rust. Any deep scratches, cracks or breakdown in the finish should be repaired without delay. Take care to ensure that any rusting is counteracted immediately, otherwise rust 'creep' will extend beyond the damaged area, particularly in tropical or coastal areas, where the moist, or salt-laden air accelerates rusting. The paint finish of the vehicle gives a very high degree of protection against the weather, but wear and deterioration occur when the vehicle is exposed to elements for prolonged periods. The vehicle therefore should be garaged whenever possible.

To prevent damage of the paint surface, remove foreign matter as soon as possible.

Note Due to the acidity, remove foreign matter such as bird droppings within 24 hours.

Washing the vehicle

The easiest way to keep the paint looking as new is to keep it clean. A wash once a week will keep the vehicle in good condition. However, it must be washed correctly.

Note

- Never use an automatic wash that requires anything touching the paint (other than water).
- Wash the vehicle once a week to remove build up of any grime on the paint.
- Never wash the vehicle in direct sunlight; find a shady spot to wash the vehicle.

1. Hose the vehicle down from top to bottom with plenty of cold water (in accordance with current water restrictions, if any). This removes any grit or other loose particles and substances. Do not use a sponge or cloth at this point.
2. Fill a bucket with lukewarm water and add no more than two capfuls of a good quality car wash. Do not use hot water, strong soap or chemical detergents.
3. To remove bird droppings, soak with a wet sponge for several minutes before washing off. If still persistent, use a solution of one litre of water and 110 grams of dissolved baking soda (bicarbonate of soda). Rinse the area with clean water.
4. Starting with the roof, use a clean sponge to clean a small section at a time. Do not allow liquid to dry before rinsing off that section with clean water. When all sections are completed, rinse the whole vehicle again with clean water.
5. Dry the vehicle thoroughly with a good quality chamois.

EXTERIOR CLEANING cont.

WARNING
Take care when moving the vehicle after washing, in case water has affected the brakes. Applying the brakes lightly will indicate whether they have been affected. To dry them quickly, lightly apply the brakes while maintaining a slow forward speed with a clear area ahead, until brake performance returns to normal.

Removing stains (grease, oil and tar spots)

Washing the vehicle regularly means that most of the harmful substances deposited on the paint are removed before they can cause permanent damage. However, some substances are not easy to remove. If you notice stains on the paint, make sure that you remove them at the earliest possible opportunity.

Grease and oil, and even tar if it's fresh, can be removed from the paint with a little kerosene or turpentine. As a precaution against staining, wash and polish the area as soon as possible after the stain has been removed. A rubbing or cutting compound can be used after a normal wash. Do not do this on a regular basis as it removes paint.

WARNING
- Some chemical cleaners, used for removing road oils and tars from painted surfaces, have been found to be detrimental to automotive paint.
- If petrol is spilt on the paint when refilling, flush off immediately with clean water as petrol has a tendency to stain or soften new paint finish during the weathering out period, particularly when the vehicle is exposed to high temperatures.
- Petrol MUST NOT be used to clean any painted or plastic surfaces.
- Do not spill coolant on the vehicle's exterior surfaces. It can damage the paintwork. If you do, wash it off immediately.

Air intakes

The intake area between the bonnet and windscreen can collect leaves which impairs air flow into the vehicle. Also, the air intake area below the front bumper may collect leaves and road grime, which impairs engine cooling. Clear this area of debris whenever the vehicle is washed.

Under vehicle washing

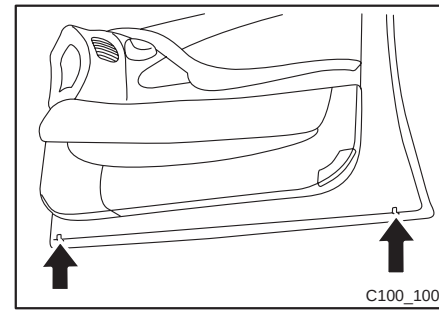
The effects of substances such as salt from road surfaces can cause rust under the vehicle. Hose the underbody with clean water whenever the vehicle is washed. In geographical areas having a heavy concentration of corrosive materials (such as by the sea), it is recommended the complete underbody be inspected and washed at least once each year, preferably after winter exposure. Pay particular attention to cleaning out the underbody where dirt and other foreign materials may have collected.

EXTERIOR CLEANING cont.

Door drain holes

It is important the drain holes at the bottom of the door panels are checked to ensure they are free of dirt and other foreign materials which could trap water inside the panels. Clean clogged drain holes with a small screwdriver.

Note The drain holes in the doors are angled toward the rear of the vehicle.



Polishing

Under normal circumstances the paint does not need polishing to retain its shine. A weekly wash is sufficient. However, the use of a good quality polymer glaze, approximately every 3 months will reduce the effects of road bloom by removing natural contaminants which can build up on the paint.

WARNING
Do not attempt to apply a polish without first washing the vehicle to remove loose grit, surface dirt, dust or grease.

Tyres

Sponging with cold water is all that is necessary for normal cleaning. Oil and grease should be removed with soap and water or detergent. For tar or other substances, use a mild abrasive, such as mechanic's hand soap or kitchen cleaning powder, if necessary. Thoroughly wash the tyres with clean water to finish. Do not use petrol to clean tyres.

A new tyre look can be restored using a good quality tyre and bumper shine.

Alloy wheels

To preserve the original appearance of alloy wheels, keep them clean and free from build up of road dirt. A good quality wheel cleaner can be used for cleaning alloy wheels. Do not use abrasive cleaners on alloy wheels.

Glass cleaning – general

Take care not to scratch the glass. If it is cleaned at the same time as the rest of the vehicle, there is a possibility that particles of grit will cause fine scratches. Flush off any mud on the glass when washing the body, but leave the final cleaning and polishing until afterwards. Use a good quality glass cleaner, such as Holden Glass Cleaner, and wash each section of glass in turn, making sure the water, its container and the sponge are quite clean and free from grit. Clean, old linen cloth is better than new material for polishing glass.

EXTERIOR CLEANING cont.

Windscreen

It is important the windscreen be kept clean so the wiper blades operate as effectively as possible. Old wiper blades can cause windscreen scratching and so should be regularly inspected and replaced.

Never use abrasive cleaners to clean glass as they can cause scratches, impairing night vision. After the windscreen has been cleaned with a wet sponge, wipe it over with a soft, lint free cloth or chamois.

It is recommended that a good quality windscreen washer additive be added to the windscreen washer reservoir.

Wiper blades

Oil and road scum thrown up on the windscreen causes smearing when the wipers are switched on and is transferred onto the wiper blades. While many methodically clean the windscreen glass, they often forget to clean the wiper blades. Consequently, smearing of the glass reappears immediately the wiper blades are used. Clean the blades by lifting them off the windscreen and cleaning with windscreen washer additive and a clean cloth.

WARNING
Do not operate the wiper blades by hand as this damages the wiper drive mechanism.

If the wiper blades are used to clean dust and dirt from the windscreen in dry conditions, always use the washer system first to wet the windscreen. Ensure the windscreen washer reservoir is full.

Should the wiper blades freeze to the windscreen, you must lift them off and free them by hand before switching on the wipers.

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